



# SEQUENCE LISTING

<110> Agarwal, Pankaj  
Lee, Judithann M.  
Smith, Randall F.  
White, John R.

<120> NOVEL COMPOUNDS

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<150> 60/213,161

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<150> 60/213,156

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<212> DNA

<213> Homo sapiens

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ttgattcaat ttccttgcaa gataggacaa ctaataaacc ttcgcttttt gtcagcagct 840
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ctttttggaa atacttttga acaaccaaaa gtccttccag taataaaagct gcaagcacca 960
ttaactttat tggaatcttc tgcacgaacc atattacata ataggaatag gattccatat 1020
ggctctcata tcattccatt ccattctctgc caagatttgg ataccgcaaa aatttgtgtt 1080
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<210> 23

<211> 461

<212> PRT

<213> Homo sapiens

<400> 23

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Gly Lys Glu Val Cys Tyr Glu Arg Leu Gly Cys Phe Lys Asp Gly Leu
          20           25           30
Pro Trp Thr Arg Thr Phe Ser Thr Glu Leu Val Gly Leu Pro Trp Ser
          35           40           45
Pro Glu Lys Ile Asn Thr Arg Phe Leu Leu Tyr Thr Ile His Asn Pro
          50           55           60
Asn Ala Tyr Gln Glu Ile Ser Ala Val Asn Ser Ser Thr Ile Gln Ala
          65           70           75           80
Ser Tyr Phe Gly Thr Asp Lys Ile Thr Arg Ile Asn Ile Ala Gly Trp
          85           90           95
Lys Thr Asp Gly Lys Trp Gln Arg Asp Met Cys Asn Val Leu Leu Gln
          100          105          110
Leu Glu Asp Ile Asn Cys Ile Asn Leu Asp Trp Ile Asn Gly Ser Arg
          115          120          125
Glu Tyr Ile His Ala Val Asn Asn Leu Arg Val Val Gly Ala Glu Val
          130          135          140
Ala Tyr Phe Ile Asp Val Leu Met Lys Lys Phe Glu Tyr Ser Pro Ser
          145          150          155          160
Lys Val His Leu Ile Gly His Ser Leu Gly Ala His Leu Ala Gly Glu
          165          170          175
Ala Gly Ser Arg Ile Pro Gly Leu Gly Arg Ile Thr Gly Leu Asp Pro
          180          185          190
Ala Gly Pro Phe Phe His Asn Thr Pro Lys Glu Val Arg Leu Asp Pro
          195          200          205
Ser Asp Ala Asn Phe Val Asp Val Ile His Thr Asn Ala Ala Arg Ile
          210          215          220
Leu Phe Glu Leu Gly Val Gly Thr Ile Asp Ala Cys Gly His Leu Asp
          225          230          235          240
Phe Tyr Pro Asn Gly Gly Lys His Met Pro Gly Cys Glu Asp Leu Ile
          245          250          255
Thr Pro Leu Leu Lys Phe Asn Phe Asn Ala Tyr Lys Lys Glu Met Ala
          260          265          270
Ser Phe Phe Asp Cys Asn His Ala Arg Ser Tyr Gln Phe Tyr Ala Glu
          275          280          285
Ser Ile Leu Asn Pro Asp Ala Phe Ile Ala Tyr Pro Cys Arg Ser Tyr
          290          295          300
Thr Ser Phe Lys Ala Gly Thr Cys Val Gly Cys Ala Asp Leu Leu His
          305          310          315          320

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Arg	Ile	Asp	Lys	Ile	Gly	Ser	His	Thr	Ser	His	Val	Phe	Leu	Thr	Leu	
				325					330					335		
Ser	Leu	Pro	Phe	Leu	Leu	Val	Ser	Leu	Tyr	Leu	Gly	Trp	Arg	His	Lys	
			340					345					350			
Leu	Ser	Val	Lys	Leu	Ser	Gly	Ser	Glu	Val	Thr	Gln	Gly	Thr	Val	Phe	
			355				360					365				
Leu	Arg	Val	Gly	Gly	Ala	Val	Arg	Lys	Thr	Gly	Glu	Phe	Ala	Ile	Val	
	370					375					380					
Ser	Gly	Lys	Leu	Glu	Pro	Gly	Met	Thr	Tyr	Thr	Lys	Leu	Ile	Asp	Ala	
385					390					395					400	
Asp	Val	Asn	Val	Gly	Asn	Ile	Thr	Ser	Val	Gln	Phe	Ile	Trp	Lys	Lys	
				405					410					415		
His	Leu	Phe	Glu	Asp	Ser	Gln	Asn	Lys	Leu	Gly	Ala	Glu	Met	Val	Ile	
			420					425					430			
Asn	Thr	Ser	Gly	Lys	Tyr	Gly	Tyr	Lys	Ser	Thr	Phe	Cys	Ser	Gln	Asp	
		435					440					445				
Ile	Met	Gly	Pro	Asn	Ile	Leu	Gln	Asn	Leu	Lys	Pro	Cys				
	450					455					460					

<210> 24

<211> 308

<212> PRT

<213> Homo sapiens

<400> 24

Met	Pro	Phe	Leu	Gln	Leu	Lys	Gly	Arg	Ala	Thr	Pro	Pro	Ser	Trp	Arg	
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His	Asp	Ser	Arg	Ser	Leu	Val	His	Leu	Leu	Asp	Gly	Lys	Glu	Gly	Val	
			20					25					30			
Trp	Asp	Thr	Thr	Gly	Tyr	Ala	Leu	Gly	Ser	Arg	Glu	Ser	Leu	Asn	Pro	
			35				40					45				
Asp	Met	Gly	Ile	Gly	Asp	Pro	His	Gly	His	Ser	Thr	Val	His	Thr	Arg	
	50					55				60						
Glu	Ala	Gly	Thr	Ala	Cys	Pro	Leu	Gln	Leu	Leu	Gly	Ala	Arg	Glu	Ala	
65					70				75						80	
Ser	Leu	Leu	Ala	Cys	Gly	Ile	Cys	Gln	Ala	Ser	Gly	Gln	Ile	Phe	Ile	
				85				90						95		
Thr	Gln	Thr	Leu	Gly	Ile	Lys	Gly	Tyr	Arg	Thr	Val	Val	Ala	Leu	Asp	
			100					105					110			
Lys	Val	Pro	Glu	Asp	Val	Gln	Glu	Tyr	Ser	Trp	Tyr	Trp	Gly	Ala	Asn	
		115					120					125				
Asp	Ser	Ala	Gly	Asn	Met	Ile	Ser	His	Lys	Pro	Pro	Ser	Ala	Gln		
						135				140						
Gln	Pro	Gly	Pro	Met	Tyr	Thr	Gly	Arg	Glu	Arg	Val	Asn	Arg	Glu	Gly	
145					150					155					160	
Ser	Leu	Leu	Ile	Arg	Pro	Thr	Ala	Leu	Asn	Asp	Thr	Gly	Asn	Tyr	Thr	
				165					170					175		
Val	Arg	Val	Val	Ala	Gly	Asn	Glu	Thr	Gln	Arg	Ala	Thr	Gly	Trp	Leu	
			180					185					190			
Glu	Val	Leu	Asp	Gly	Pro	Asp	Tyr	Val	Leu	Leu	Arg	Ser	Asn	Pro	Asp	
		195					200					205				
Asp	Phe	Asn	Gly	Ile	Val	Thr	Ala	Glu	Ile	Gly	Ser	Gln	Val	Glu	Met	
	210					215					220					
Glu	Cys	Ile	Cys	Tyr	Ser	Phe	Leu	Asp	Leu	Lys	Tyr	His	Trp	Ile	His	
225					230					235					240	

Asn	Gly	Ser	Leu	Leu	Asn	Phe	Ser	Asp	Ala	Lys	Met	Asn	Leu	Ser	Ser	
				245					250					255		
Leu	Ala	Trp	Glu	Gln	Met	Gly	Arg	Tyr	Arg	Cys	Thr	Val	Glu	Asn	Pro	
			260					265					270			
Val	Thr	Gln	Leu	Ile	Met	Tyr	Met	Asp	Val	Arg	Ile	Gln	Ala	Pro	His	
		275					280					285				
Glu	Cys	Ser	Ser	Ser	Pro	Pro	Gly	Ser	Cys	Phe	Ala	His	Leu	Pro	Ala	
	290					295					300					
Ser	Met	Pro	Cys													
305																

<210> 25  
 <211> 457  
 <212> PRT  
 <213> Homo sapiens

<400> 25																
Met	Asp	Leu	Ser	Arg	Pro	Arg	Trp	Ser	Leu	Trp	Arg	Arg	Val	Phe	Leu	
1				5					10					15		
Met	Ala	Ser	Leu	Ala	Cys	Gly	Ile	Cys	Gln	Ala	Ser	Gly	Gln	Ile		
			20				25					30				
Phe	Ile	Thr	Gln	Thr	Leu	Gly	Ile	Lys	Gly	Tyr	Arg	Thr	Val	Val	Ala	
		35				40					45					
Leu	Asp	Lys	Val	Pro	Glu	Asp	Val	Gln	Glu	Tyr	Ser	Trp	Tyr	Trp	Gly	
	50					55				60						
Ala	Asn	Asp	Ser	Ala	Gly	Asn	Met	Ile	Ile	Ser	His	Lys	Pro	Pro	Ser	
65				70					75						80	
Ala	Gln	Gln	Pro	Gly	Pro	Met	Tyr	Thr	Gly	Arg	Glu	Arg	Val	Asn	Arg	
				85					90					95		
Glu	Gly	Ser	Leu	Leu	Ile	Arg	Pro	Thr	Ala	Leu	Asn	Asp	Thr	Gly	Asn	
			100				105						110			
Tyr	Thr	Val	Arg	Val	Val	Ala	Gly	Asn	Glu	Thr	Gln	Arg	Ala	Thr	Gly	
	115					120					125					
Trp	Leu	Glu	Val	Leu	Glu	Leu	Gly	Ser	Asn	Leu	Gly	Ile	Ser	Val	Asn	
	130					135					140					
Ala	Ser	Ser	Leu	Val	Glu	Asn	Met	Asp	Ser	Val	Ala	Ala	Asp	Cys	Leu	
145				150					155					160		
Thr	Asn	Val	Thr	Asn	Ile	Thr	Trp	Tyr	Val	Asn	Asp	Val	Pro	Thr	Ser	
			165					170					175			
Ser	Ser	Asp	Arg	Met	Thr	Ile	Ser	Pro	Asp	Gly	Lys	Thr	Leu	Val	Ile	
		180						185					190			
Leu	Arg	Val	Ser	Arg	Tyr	Asp	Arg	Thr	Ile	Gln	Cys	Met	Ile	Glu	Ser	
		195				200					205					
Phe	Pro	Glu	Ile	Phe	Gln	Arg	Ser	Glu	Arg	Ile	Ser	Leu	Thr	Val	Ala	
	210				215						220					
Tyr	Gly	Pro	Asp	Tyr	Val	Leu	Leu	Arg	Ser	Asn	Pro	Asp	Asp	Phe	Asn	
225					230					235					240	
Gly	Ile	Val	Thr	Ala	Glu	Ile	Gly	Ser	Gln	Val	Glu	Met	Glu	Cys	Ile	
			245						250					255		
Cys	Tyr	Ser	Phe	Leu	Asp	Leu	Lys	Tyr	His	Trp	Ile	His	Asn	Gly	Ser	
		260						265					270			
Leu	Leu	Asn	Phe	Ser	Asp	Ala	Lys	Met	Asn	Leu	Ser	Ser	Leu	Ala	Trp	
		275					280					285				
Glu	Gln	Met	Gly	Arg	Tyr	Arg	Cys	Thr	Val	Glu	Asn	Pro	Val	Thr	Gln	
	290					295					300					

Leu	Ile	Met	Tyr	Met	Asp	Val	Arg	Ile	Gln	Ala	Pro	His	Glu	Cys	Pro
305					310					315					320
Leu	Pro	Ser	Gly	Ile	Leu	Pro	Val	Val	His	Arg	Asp	Phe	Ser	Ile	Ser
			325						330					335	
Gly	Ser	Met	Val	Met	Phe	Leu	Ile	Met	Leu	Thr	Val	Leu	Gly	Gly	Val
			340					345					350		
Tyr	Ile	Cys	Gly	Val	Leu	Ile	His	Ala	Leu	Ile	Asn	His	Tyr	Ser	Ile
		355					360					365			
Arg	Cys	Pro	His	Cys	Ser	Gly	Thr	Arg	Val	Gly	Cys	Trp	Leu	Gly	Ala
	370					375					380				
Gly	Thr	Gln	Glu	Pro	Ala	Leu	Pro	Pro	Glu	Gly	Lys	Gln	Ser	Gln	Lys
385					390					395					400
Gly	Arg	Asp	Lys	Pro	Gly	Thr	Arg	Leu	Ser	Gly	Ile	Ile	Trp	Gly	Arg
			405					410						415	
Gln	Ile	Ser	Pro	Gln	Asp	Leu	Lys	Leu	Met	Gly	Ala	Arg	Glu	Gly	Leu
			420					425					430		
Glu	Ser	Ala	Met	Val	Leu	Asn	Ser	Cys	Gly	Val	Ser	Ser	Ser	Asn	Phe
		435					440					445			
Pro	Ser	Leu	Cys	Val	Tyr	Lys	Gly	Tyr							
	450					455									

<210> 26

<211> 704

<212> PRT

<213> Homo sapiens

<400> 26

Met	Leu	His	Asp	Gly	Leu	Thr	Ala	Pro	Asp	Gly	Cys	Gly	Ile	Tyr	Ser
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Leu	Thr	Gly	Arg	Glu	Val	Leu	Thr	Pro	Phe	Pro	Gly	Leu	Gly	Thr	Ala
			20					25					30		
Ala	Ala	Pro	Ala	Gln	Gly	Gly	Ala	His	Leu	Lys	Gln	Cys	Asp	Leu	Leu
		35				40					45				
Lys	Leu	Ser	Arg	Arg	Gln	Lys	Gln	Leu	Cys	Arg	Arg	Glu	Pro	Gly	Leu
	50				55					60					
Ala	Glu	Thr	Leu	Arg	Asp	Ala	Ala	His	Leu	Gly	Leu	Leu	Glu	Cys	Gln
65				70					75						80
Phe	Gln	Phe	Arg	His	Glu	Arg	Trp	Asn	Cys	Ser	Leu	Glu	Gly	Arg	Met
			85					90						95	
Gly	Leu	Leu	Lys	Arg	Gly	Phe	Lys	Glu	Thr	Ala	Phe	Leu	Tyr	Ala	Val
			100					105					110		
Ser	Ser	Ala	Ala	Leu	Thr	His	Thr	Leu	Ala	Arg	Ala	Cys	Ser	Ala	Gly
		115					120					125			
Arg	Met	Glu	Arg	Cys	Thr	Cys	Asp	Asp	Ser	Pro	Gly	Leu	Glu	Ser	Arg
	130					135					140				
Gln	Ala	Trp	Gln	Trp	Gly	Val	Cys	Gly	Asp	Asn	Leu	Lys	Tyr	Ser	Thr
145					150				155						160
Lys	Phe	Leu	Ser	Asn	Phe	Leu	Gly	Ser	Lys	Arg	Gly	Asn	Lys	Asp	Leu
				165					170					175	
Arg	Ala	Arg	Ala	Asp	Ala	His	Asn	Thr	His	Val	Gly	Ile	Lys	Ala	Val
			180					185					190		
Lys	Ser	Gly	Leu	Arg	Thr	Thr	Cys	Lys	Cys	His	Gly	Val	Ser	Gly	Ser
		195					200					205			
Cys	Ala	Val	Arg	Thr	Cys	Trp	Lys	Gln	Leu	Ser	Pro	Phe	Arg	Glu	Thr
	210					215					220				

Gly	Gln	Val	Leu	Lys	Leu	Arg	Tyr	Asp	Ser	Ala	Val	Lys	Val	Ser	Ser	
225					230					235					240	
Ala	Thr	Asn	Glu	Ala	Leu	Gly	Arg	Leu	Glu	Leu	Trp	Ala	Pro	Ala	Arg	
				245					250					255		
Gln	Gly	Ser	Leu	Thr	Lys	Gly	Leu	Ala	Pro	Arg	Ser	Gly	Asp	Leu	Val	
			260					265					270			
Tyr	Met	Glu	Asp	Ser	Pro	Ser	Phe	Cys	Arg	Pro	Ser	Lys	Tyr	Ser	Pro	
		275					280					285				
Gly	Thr	Ala	Gly	Arg	Val	Cys	Ser	Arg	Glu	Ala	Ser	Cys	Ser	Ser	Leu	
	290					295					300					
Cys	Cys	Gly	Arg	Gly	Tyr	Asp	Thr	Gln	Ser	Arg	Leu	Val	Ala	Phe	Ser	
305					310					315					320	
Cys	His	Cys	Gln	Val	Gln	Trp	Cys	Cys	Tyr	Val	Glu	Cys	Gln	Gln	Cys	
			325						330					335		
Val	Gln	Glu	Glu	Leu	Val	Tyr	Thr	Cys	Lys	His	Ala	Met	Gly	Pro	Val	
			340					345					350			
Gly	Phe	Pro	Arg	Gln	Cys	Gln	Gly	Ala	Phe	Phe	Glu	Ser	Ser	Pro	Gly	
		355					360					365				
Gln	Thr	Arg	Ala	Arg	Leu	Thr	Gly	Arg	Glu	Val	Leu	Thr	Pro	Phe	Pro	
	370					375					380					
Gly	Leu	Gly	Thr	Ala	Ala	Pro	Ala	Gln	Gly	Gly	Ala	His	Leu	Lys		
385					390				395					400		
Gln	Cys	Asp	Leu	Leu	Lys	Leu	Ser	Arg	Arg	Gln	Lys	Gln	Leu	Cys	Arg	
			405					410						415		
Arg	Glu	Pro	Gly	Leu	Ala	Glu	Thr	Leu	Arg	Asp	Ala	Ala	His	Leu	Gly	
			420					425					430			
Leu	Leu	Glu	Cys	Gln	Phe	Gln	Phe	Arg	His	Glu	Arg	Trp	Asn	Cys	Ser	
		435					440					445				
Leu	Glu	Gly	Arg	Met	Gly	Leu	Leu	Lys	Arg	Gly	Phe	Lys	Glu	Thr	Ala	
	450					455					460					
Phe	Leu	Tyr	Ala	Val	Ser	Ser	Ala	Ala	Leu	Thr	His	Thr	Leu	Ala	Arg	
465					470					475					480	
Ala	Cys	Ser	Ala	Gly	Arg	Met	Glu	Arg	Cys	Thr	Cys	Asp	Asp	Ser	Pro	
				485					490					495		
Gly	Leu	Glu	Ser	Arg	Gln	Ala	Trp	Gln	Trp	Gly	Val	Cys	Gly	Asp	Asn	
			500					505					510			
Leu	Lys	Tyr	Ser	Thr	Lys	Phe	Leu	Ser	Asn	Phe	Leu	Gly	Ser	Lys	Arg	
		515					520					525				
Gly	Asn	Lys	Asp	Leu	Arg	Ala	Arg	Ala	Asp	Ala	His	Asn	Thr	His	Val	
	530					535					540					
Gly	Ile	Lys	Ala	Val	Lys	Ser	Gly	Leu	Arg	Thr	Thr	Cys	Lys	Cys	His	
545					550				555					560		
Gly	Val	Ser	Gly	Ser	Cys	Ala	Val	Arg	Thr	Cys	Trp	Lys	Gln	Leu	Ser	
				565					570					575		
Pro	Phe	Arg	Glu	Thr	Gly	Gln	Val	Leu	Lys	Leu	Arg	Tyr	Asp	Ser	Ala	
			580					585					590			
Val	Lys	Val	Ser	Ser	Ala	Thr	Asn	Glu	Ala	Leu	Gly	Arg	Leu	Glu	Leu	
		595					600					605				
Trp	Ala	Pro	Ala	Arg	Gln	Gly	Ser	Leu	Thr	Lys	Gly	Leu	Ala	Pro	Arg	
	610					615					620					
Ser	Gly	Asp	Leu	Val	Tyr	Met	Glu	Asp	Ser	Pro	Ser	Phe	Cys	Arg	Pro	
625					630					635					640	
Ser	Lys	Tyr	Ser	Pro	Gly	Thr	Ala	Gly	Arg	Val	Cys	Ser	Arg	Glu	Ala	
				645					650					655		
Ser	Cys	Ser	Ser	Leu	Cys	Cys	Gly	Arg	Gly	Tyr	Asp	Thr	Gln	Ser	Arg	
			660					665					670			

Leu	Val	Ala	Phe	Ser	Cys	His	Cys	Gln	Val	Gln	Trp	Cys	Cys	Tyr	Val
		675					680					685			
Glu	Cys	Gln	Gln	Cys	Val	Gln	Glu	Glu	Leu	Val	Tyr	Thr	Cys	Lys	His
	690					695					700				

<210> 27

<211> 361

<212> PRT

<213> Homo sapiens

<400> 27

Met	Lys	Pro	Leu	Arg	Arg	Pro	Leu	Pro	Phe	Ile	Cys	Pro	Ser	Pro	Pro
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Ser	Pro	Arg	Leu	Thr	Cys	Leu	Pro	Pro	Leu	Ala	Leu	Ser	Ser	Leu	Thr
			20					25					30		
Gly	Arg	Glu	Val	Leu	Thr	Pro	Phe	Pro	Gly	Leu	Gly	Thr	Ala	Ala	Ala
		35					40					45			
Pro	Ala	Gln	Gly	Gly	Ala	His	Leu	Lys	Gln	Cys	Asp	Leu	Leu	Lys	Leu
	50					55					60				
Ser	Arg	Arg	Gln	Lys	Gln	Leu	Cys	Arg	Arg	Glu	Pro	Gly	Leu	Ala	Glu
65					70					75					80
Thr	Leu	Arg	Asp	Ala	Ala	His	Leu	Gly	Leu	Leu	Glu	Cys	Gln	Phe	Gln
				85					90					95	
Phe	Arg	His	Glu	Arg	Trp	Asn	Cys	Ser	Leu	Glu	Gly	Arg	Met	Gly	Leu
			100					105					110		
Leu	Lys	Arg	Gly	Phe	Lys	Glu	Thr	Ala	Phe	Leu	Tyr	Ala	Val	Ser	Ser
		115					120					125			
Ala	Ala	Leu	Thr	His	Thr	Leu	Ala	Arg	Ala	Cys	Ser	Ala	Gly	Arg	Met
	130					135					140				
Glu	Arg	Cys	Thr	Cys	Asp	Asp	Ser	Pro	Gly	Leu	Glu	Ser	Arg	Gln	Ala
145					150					155					160
Trp	Gln	Trp	Gly	Val	Cys	Gly	Asp	Asn	Leu	Lys	Tyr	Ser	Thr	Lys	Phe
			165						170					175	
Leu	Ser	Asn	Phe	Leu	Gly	Ser	Lys	Arg	Gly	Asn	Lys	Asp	Leu	Arg	Ala
		180						185					190		
Arg	Ala	Asp	Ala	His	Asn	Thr	His	Val	Gly	Ile	Lys	Ala	Val	Lys	Ser
		195				200						205			
Gly	Leu	Arg	Thr	Thr	Cys	Lys	Cys	His	Gly	Val	Ser	Gly	Ser	Cys	Ala
	210					215					220				
Val	Arg	Thr	Cys	Trp	Lys	Gln	Leu	Ser	Pro	Phe	Arg	Glu	Thr	Gly	Gln
225					230					235					240
Val	Leu	Lys	Leu	Arg	Tyr	Asp	Ser	Ala	Val	Lys	Val	Ser	Ser	Ala	Thr
			245						250					255	
Asn	Glu	Ala	Leu	Gly	Arg	Leu	Glu	Leu	Trp	Ala	Pro	Ala	Arg	Gln	Gly
			260					265					270		
Ser	Leu	Thr	Lys	Gly	Leu	Ala	Pro	Arg	Ser	Gly	Asp	Leu	Val	Tyr	Met
		275					280					285			
Glu	Asp	Ser	Pro	Ser	Phe	Cys	Arg	Pro	Ser	Lys	Tyr	Ser	Pro	Gly	Thr
	290					295					300				
Ala	Gly	Arg	Val	Cys	Ser	Arg	Glu	Ala	Ser	Cys	Ser	Ser	Leu	Cys	Cys
305					310					315					320
Gly	Arg	Gly	Tyr	Asp	Thr	Gln	Ser	Arg	Leu	Val	Ala	Phe	Ser	Cys	His
				325					330					335	
Cys	Gln	Val	Gln	Trp	Cys	Cys	Tyr	Val	Glu	Cys	Gln	Gln	Cys	Val	Gln
			340					345					350		

Glu Glu Leu Val Tyr Thr Cys Lys His  
 355 360

<210> 28  
 <211> 365  
 <212> PRT  
 <213> Homo sapiens

<400> 28  
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 20 25 30  
 Met Asn Thr Ser Glu Ile Ile Ile Tyr Asn Gly Tyr Pro Ser Glu Glu  
 35 40 45  
 Tyr Glu Val Thr Thr Glu Asp Gly Tyr Ile Leu Leu Val Asn Arg Ile  
 50 55 60  
 Pro Tyr Gly Arg Thr His Ala Arg Ser Thr Ala Asp Ala Gly Tyr Asp  
 65 70 75 80  
 Val Trp Met Gly Asn Ser Arg Gly Asn Thr Trp Ser Arg Arg His Lys  
 85 90 95  
 Thr Leu Ser Glu Thr Asp Glu Lys Phe Trp Ala Phe Ser Phe Asp Glu  
 100 105 110  
 Met Ala Lys Tyr Asp Leu Pro Gly Val Ile Asp Phe Ile Val Asn Lys  
 115 120 125  
 Thr Gly Gln Glu Lys Leu Tyr Phe Ile Gly His Ser Leu Gly Thr Thr  
 130 135 140  
 Ile Gly Phe Val Ala Phe Ser Thr Met Pro Glu Leu Ala Gln Arg Ile  
 145 150 155 160  
 Lys Met Asn Phe Ala Leu Gly Pro Thr Ile Ser Phe Lys Tyr Pro Thr  
 165 170 175  
 Gly Ile Phe Thr Arg Phe Phe Leu Leu Pro Asn Ser Ile Ile Lys Ala  
 180 185 190  
 Val Phe Gly Thr Lys Gly Phe Phe Leu Glu Asp Lys Lys Thr Lys Ile  
 195 200 205  
 Ala Ser Thr Lys Ile Cys Asn Asn Lys Ile Leu Trp Leu Ile Cys Ser  
 210 215 220  
 Glu Phe Met Ser Leu Trp Ala Gly Ser Asn Lys Lys Asn Met Asn Gln  
 225 230 235 240  
 Ser Arg Met Asp Val Tyr Met Ser His Ala Pro Thr Gly Ser Ser Val  
 245 250 255  
 His Asn Ile Leu His Ile Lys Gln Leu Tyr His Ser Asp Glu Phe Arg  
 260 265 270  
 Ala Tyr Asp Trp Gly Asn Asp Ala Asp Asn Met Lys His Tyr Asn Gln  
 275 280 285  
 Ser His Pro Pro Ile Tyr Asp Leu Thr Ala Met Lys Val Pro Thr Ala  
 290 295 300  
 Ile Trp Ala Gly Gly His Asp Val Leu Val Thr Pro Gln Asp Val Ala  
 305 310 315 320  
 Arg Ile Leu Pro Gln Ile Lys Ser Leu His Tyr Phe Lys Leu Leu Pro  
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<210> 29  
 <211> 397  
 <212> PRT  
 <213> Homo sapiens

<400> 29

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Thr	Gly	Gln	Lys	Arg	Leu	Tyr	Tyr	Val	Gly	His	Ser	Gln	Gly	Thr	Thr
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Ile	Ala	Phe	Ile	Ala	Phe	Ser	Thr	Asn	Pro	Glu	Leu	Ala	Lys	Lys	Ile
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Ile	Ala	Thr	Lys	Val	Cys	Asn	Arg	Lys	Leu	Phe	Arg	Arg	Ile	Cys	Ser
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Ser	Arg	Leu	Asp	Val	Tyr	Leu	Ser	His	Asn	Pro	Ala	Gly	Thr	Ser	Val
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Gln	Asn	Met	Leu	His	Trp	Ala	Gln	Leu	Tyr	His	Ser	Asp	Glu	Phe	Arg
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Ala	Tyr	Asp	Trp	Gly	Asn	Asp	Ala	Asp	Asn	Met	Lys	His	Tyr	Asn	Gln
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Ser	His	Pro	Pro	Ile	Tyr	Asp	Leu	Thr	Ala	Met	Lys	Val	Pro	Thr	Ala
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Asp	Trp	Asn	His	Phe	Asp	Phe	Val	Trp	Gly	Leu	Asp	Ala	Pro	Gln	Arg
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<211> 3705
<212> PRT
<213> Homo sapiens
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<400> 30

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Ala	Arg	Ala 35	Arg	Glu	Glu	Ala	Gly 40	Gly	Gly	Phe	Ser	Leu 45	His	Pro	Pro
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Gly 65	Glu	Glu	Ala	Pro	Ala	Arg	Gly	Ser	Pro	Arg	Pro 75	Thr	Glu	Asp	Leu
Tyr	Cys	Lys	Leu	Val 85	Gly	Gly	Pro	Val	Ala 90	Gly	Gly	Asp	Pro	Asn 95	Gln
Thr	Ile	Arg	Gly 100	Gln	Tyr	Cys	Asp	Ile 105	Cys	Thr	Ala	Ala 110	Asn	Ser	Asn
Lys	Ala	His 115	Pro	Ala	Ser	Asn	Ala 120	Ile	Asp	Gly	Thr	Glu 125	Arg	Trp	Trp
Gln	Ser 130	Pro	Pro	Leu	Ser	Arg 135	Gly	Leu	Glu	Tyr	Asn 140	Glu	Val	Asn	Val
Thr 145	Leu	Asp	Leu	Gly 150	Gln	Val	Phe	His	Val 155	Ala	Tyr	Val	Leu	Ile	Lys
Phe	Ala	Asn	Ser	Pro 165	Arg	Pro	Asp	Leu	Trp 170	Val	Leu	Glu	Arg	Ser 175	Met
Asp	Phe	Gly	Arg 180	Thr	Tyr	Gln	Pro	Trp 185	Gln	Phe	Phe	Ala 190	Ser	Ser	Lys
Arg	Asp	Cys 195	Leu	Glu	Arg	Phe	Gly 200	Pro	Gln	Thr	Leu	Glu 205	Arg	Ile	Thr
Arg	Asp 210	Asp	Ala	Ala	Ile	Cys 215	Thr	Thr	Glu	Tyr	Ser 220	Arg	Ile	Val	Pro
Leu 225	Glu	Asn	Gly	Glu 230	Ile	Val	Val	Ser	Leu 235	Val	Asn	Gly	Arg	Pro	Gly
Ala	Met	Asn	Phe	Ser 245	Tyr	Ser	Pro	Leu	Leu 250	Arg	Glu	Phe	Thr	Lys 255	Ala
Thr	Asn	Val	Arg 260	Leu	Arg	Phe	Leu	Arg 265	Thr	Asn	Thr	Leu 270	Leu	Gly	His
Leu	Met	Gly 275	Lys	Ala	Leu	Arg	Asp 280	Pro	Thr	Val	Thr	Arg 285	Arg	Tyr	Tyr
Tyr	Ser 290	Ile	Lys	Asp	Ile	Ser 295	Ile	Gly	Gly	Arg	Cys 300	Val	Cys	His	Gly
His 305	Ala	Asp	Ala	Cys 310	Asp	Ala	Lys	Asp	Pro	Thr 315	Asp	Pro	Phe	Arg	Leu
Gln	Cys	Thr	Cys	Gln 325	His	Asn	Thr	Cys	Gly 330	Gly	Thr	Cys	Asp	Arg 335	Cys
Cys	Pro	Gly	Phe 340	Asn	Gln	Gln	Pro	Trp 345	Lys	Pro	Ala	Thr 350	Ala	Asn	Ser
Ala	Asn	Glu 355	Cys	Gln	Ser	Cys	Asn 360	Cys	Tyr	Gly	His 365	Ala	Thr	Asp	Cys
Tyr	Tyr 370	Asp	Pro	Glu	Val	Asp 375	Arg	Arg	Arg	Ala	Ser 380	Gln	Ser	Leu	Asp

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Asn	His	Pro	Leu	Asp	Ser	Pro	His	Val	Cys	Arg	Arg	Cys	Asn	Cys	Glu
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Cys	Arg	Pro	Asn	Phe	Ser	Gly	Glu	Arg	Cys	Asp	Val	Cys	Ala	Glu	Gly
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Cys	Ala	Pro	Gly	Phe	Tyr	Gly	Pro	Gly	Cys	Gln	Pro	Cys	Gln	Cys	Ser
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Asp	Gln	Leu	Cys	Gly	Ala	Gly	Gly	Leu	Cys	Arg	Cys	Arg	Pro	Gly	Tyr
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Glu	Ala	Gly	Ser	Cys	His	Pro	Ala	Gly	Leu	Ala	Pro	Val	Asp	Pro	Ala
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Leu	Pro	Glu	Ala	Gln	Val	Pro	Cys	Met	Cys	Arg	Ala	His	Val	Glu	Gly
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	850					855					860						
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Ala	Ala	Thr	Pro	Glu	Gly	His	Ala	Val	Arg	Phe	Gly	Phe	Asn	Pro	Leu		
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Glu	Phe	Glu	Asn	Phe	Ser	Trp	Arg	Gly	Tyr	Ala	Gln	Met	Ala	Pro	Val		
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Gln	Pro	Arg	Ile	Val	Ala	Arg	Leu	Asn	Leu	Thr	Ser	Pro	Asp	Leu	Phe		
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Trp	Leu	Val	Phe	Arg	Tyr	Val	Asn	Arg	Gly	Ala	Met	Ser	Val	Ser	Gly		
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Ser	Ala	Ala	Gly	Leu	Glu	Ala	Leu	Cys	Arg	Gln	Asp	Asn	Ser	Leu	Pro		
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Ser	Glu	Ala	Ser	Val	Arg	Leu	Thr	Ala	Glu	Gln	Ala	Arg	Phe	Phe	Leu		
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His	Gly	Val	Thr	Leu	Val	Pro	Ile	Glu	Glu	Phe	Ser	Pro	Glu	Phe	Val		
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Thr	His	Ala	Gln	Asp	Leu	Thr	Pro	Ala	Met	Ser	Pro	Ala	Gly	Pro	Arg		
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Arg	Glu	Pro	Gln	Ala	Thr	Val	Val	Phe	Thr	Thr	His	Val	Pro	Thr	Leu	1285	1290	1295
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Ala	Pro	Gly	Val	Cys	Asp	Pro	Leu	Thr	Gly	Gln	Cys	Tyr	Cys	Lys	Glu	1585	1590	1595
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Ala	Thr	Glu	Arg	Cys	Arg	Ser	Ser	Ser	Tyr	Thr	Arg	Gln	Glu	Phe	Val	1635	1640	1645
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His	Glu	Arg	Gln	Pro	Gly	Thr	Glu	Met	Leu	Arg	Ala	Asp	Leu	Arg	His	1665	1670	1675
Val	Pro	Glu	Ala	Val	Pro	Glu	Ala	Phe	Pro	Glu	Leu	Tyr	Trp	Gln	Ala	1685	1690	1695
Pro	Pro	Ser	Tyr	Leu	Gly	Asp	Arg	Val	Ser	Ser	Tyr	Gly	Gly	Thr	Leu	1700	1705	1710
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Asp	Pro	Ser	Ala	Pro	Cys	Val	Ser	Cys	Pro	Cys	Pro	Leu	Ser	Val	Pro		
1905					1910					1915					1920		
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Cys	Asp	Cys	Ser	Gly	Asn	Gly	Asp	Pro	Asn	Leu	Leu	Phe	Ser	Asp	Cys		
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Asp	Pro	Leu	Thr	Gly	Ala	Cys	Arg	Gly	Cys	Leu	Arg	His	Thr	Thr	Gly		
1985					1990					1995					2000		
Pro	Arg	Cys	Glu	Ile	Cys	Ala	Pro	Gly	Phe	Tyr	Gly	Asn	Ala	Leu	Leu		
				2005					2010						2015		
Pro	Gly	Asn	Cys	Thr	Arg	Cys	Asp	Cys	Thr	Pro	Cys	Gly	Thr	Glu	Ala		
			2020					2025						2030			
Cys	Asp	Pro	His	Ser	Gly	His	Cys	Leu	Cys	Lys	Ala	Gly	Val	Thr	Gly		
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Arg	Arg	Cys	Asp	Arg	Cys	Gln	Glu	Gly	His	Phe	Gly	Phe	Asp	Gly	Cys		
	2050					2055					2060						
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Gln	Ala	Met	Leu	Ala	Met	Asp	Thr	Asp	Glu	Thr	Ser	Lys	Lys	Ile	Ala	2625	2630	2635	2640
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Ala	Gly	His	Ser	Val	Ser	Thr	Leu	Glu	Lys	Thr	Leu	Pro	Gln	Leu	Leu	2690	2695	2700	
Ala	Lys	Leu	Ser	Ile	Leu	Glu	Asn	Arg	Gly	Val	His	Asn	Ala	Ser	Leu	2705	2710	2715	2720
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Arg	Gly	Ala	Ala	Ser	Lys	Val	Lys	Val	Pro	Met	Lys	Phe	Asn	Gly	Arg	2740	2745	2750	
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 <213> Homo sapiens

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Gln	Ser	Pro	Pro	Leu	Ser	Arg	Gly	Leu	Glu	Tyr	Asn	Glu	Val	Asn	Val	
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Thr	Leu	Asp	Leu	Gly	Gln	Val	Phe	His	Val	Ala	Tyr	Val	Leu	Ile	Lys	
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Ala	Met	Asn	Phe	Ser	Tyr	Ser	Pro	Leu	Leu	Arg	Glu	Phe	Thr	Lys	Ala
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785					790					795					800	
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				805					810					815		
Gly	Leu	Asp	Gln	Ala	Asp	Tyr	Phe	Gly	Cys	Arg	Ser	Cys	Arg	Cys	Asp	
			820					825					830			
Ile	Gly	Gly	Ala	Leu	Gly	Gln	Ser	Cys	Glu	Pro	Arg	Thr	Gly	Val	Cys	
	835						840					845				
Arg	Cys	Arg	Pro	Asn	Thr	Gln	Gly	Pro	Thr	Cys	Ser	Glu	Pro	Ala	Arg	
	850					855					860					
Asp	His	Tyr	Leu	Pro	Asp	Leu	His	His	Leu	Arg	Leu	Glu	Leu	Glu	Glu	
865					870					875					880	
Ala	Ala	Thr	Pro	Glu	Gly	His	Ala	Val	Arg	Phe	Gly	Phe	Asn	Pro	Leu	
				885					890					895		
Glu	Phe	Glu	Asn	Phe	Ser	Trp	Arg	Gly	Tyr	Ala	Gln	Met	Ala	Pro	Val	
			900					905					910			
Gln	Pro	Arg	Ile	Val	Ala	Arg	Leu	Asn	Leu	Thr	Ser	Pro	Asp	Leu	Phe	
		915					920					925				
Trp	Leu	Val	Phe	Arg	Tyr	Val	Asn	Arg	Gly	Ala	Met	Ser	Val	Ser	Gly	
	930					935					940					
Arg	Val	Ser	Val	Arg	Glu	Glu	Gly	Arg	Ser	Ala	Thr	Cys	Ala	Asn	Cys	
945					950					955					960	
Thr	Ala	Gln	Ser	Gln	Pro	Val	Ala	Phe	Pro	Pro	Ser	Thr	Glu	Pro	Ala	
				965					970					975		
Phe	Ile	Thr	Val	Pro	Gln	Arg	Gly	Phe	Gly	Glu	Pro	Phe	Val	Leu	Asn	
			980					985					990			
Pro	Gly	Thr	Trp	Ala	Leu	Arg	Val	Glu	Ala	Glu	Gly	Val	Leu	Leu	Asp	
		995					1000					1005				
Tyr	Val	Val	Leu	Leu	Pro	Ser	Ala	Tyr	Tyr	Glu	Ala	Ala	Leu	Leu	Gln	
	1010					1015					1020					
Leu	Arg	Val	Thr	Glu	Ala	Cys	Thr	Tyr	Arg	Pro	Ser	Ala	Gln	Gln	Ser	
1025					1030					1035					1040	
Gly	Asp	Asn	Cys	Leu	Leu	Tyr	Thr	His	Leu	Pro	Leu	Asp	Gly	Phe	Pro	
				1045					1050					1055		
Ser	Ala	Ala	Gly	Leu	Glu	Ala	Leu	Cys	Arg	Gln	Asp	Asn	Ser	Leu	Pro	
			1060					1065					1070			
Arg	Pro	Cys	Pro	Thr	Glu	Gln	Leu	Ser	Pro	Ser	His	Pro	Pro	Leu	Ile	
		1075					1080					1085				

Thr	Cys	Thr	Gly	Ser	Asp	Val	Asp	Val	Gln	Leu	Gln	Val	Ala	Val	Pro	
1090						1095					1100					
Gln	Pro	Gly	Arg	Tyr	Ala	Leu	Val	Val	Glu	Tyr	Ala	Asn	Glu	Asp	Ala	
1105					1110					1115					1120	
Arg	Gln	Glu	Val	Gly	Val	Ala	Val	His	Thr	Pro	Gln	Arg	Ala	Pro	Gln	
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Gln	Gly	Leu	Leu	Ser	Leu	His	Pro	Cys	Leu	Tyr	Ser	Thr	Leu	Cys	Arg	
			1140					1145					1150			
Gly	Thr	Ala	Arg	Asp	Thr	Gln	Asp	His	Leu	Ala	Val	Phe	His	Leu	Asp	
		1155					1160					1165				
Ser	Glu	Ala	Ser	Val	Arg	Leu	Thr	Ala	Glu	Gln	Ala	Arg	Phe	Phe	Leu	
1170						1175					1180					
His	Gly	Val	Thr	Leu	Val	Pro	Ile	Glu	Glu	Phe	Ser	Pro	Glu	Phe	Val	
1185					1190					1195					1200	
Glu	Pro	Arg	Val	Ser	Cys	Ile	Ser	Ser	His	Gly	Ala	Phe	Gly	Pro	Asn	
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Ser	Ala	Ala	Cys	Leu	Pro	Ser	Arg	Phe	Pro	Lys	Pro	Pro	Gln	Pro	Ile	
			1220					1225					1230			
Ile	Leu	Arg	Asp	Cys	Gln	Val	Ile	Pro	Leu	Pro	Pro	Gly	Leu	Pro	Leu	
		1235						1240					1245			
Thr	His	Ala	Gln	Asp	Leu	Thr	Pro	Ala	Met	Ser	Pro	Ala	Gly	Pro	Arg	
						1255					1260					
Pro	Arg	Pro	Pro	Thr	Ala	Val	Asp	Pro	Asp	Ala	Glu	Pro	Thr	Leu	Leu	
1265					1270					1275					1280	
Arg	Glu	Pro	Gln	Ala	Thr	Val	Val	Phe	Thr	Thr	His	Val	Pro	Thr	Leu	
				1285					1290						1295	
Gly	Arg	Tyr	Ala	Phe	Leu	Leu	His	Gly	Tyr	Gln	Pro	Ala	His	Pro	Thr	
			1300					1305					1310			
Phe	Pro	Val	Glu	Val	Leu	Ile	Asn	Ala	Gly	Arg	Val	Trp	Gln	Gly	His	
		1315					1320					1325				
Ala	Asn	Ala	Ser	Phe	Cys	Pro	His	Gly	Tyr	Gly	Cys	Arg	Thr	Leu	Val	
		1330				1335					1340					
Val	Cys	Glu	Gly	Gln	Ala	Leu	Leu	Asp	Val	Thr	His	Ser	Glu	Leu	Thr	
1345					1350					1355					1360	
Val	Thr	Val	Arg	Val	Pro	Lys	Gly	Arg	Trp	Leu	Trp	Leu	Asp	Tyr	Val	
				1365					1370						1375	
Leu	Val	Val	Pro	Glu	Asn	Val	Tyr	Ser	Phe	Gly	Tyr	Leu	Arg	Glu	Glu	
			1380					1385					1390			
Pro	Leu	Asp	Lys	Ser	Tyr	Asp	Phe	Ile	Ser	His	Cys	Ala	Ala	Gln	Gly	
		1395					1400					1405				
Tyr	His	Ile	Ser	Pro	Ser	Ser	Ser	Leu	Phe	Cys	Arg	Asn	Ala	Ala		
1410						1415					1420					
Ala	Ser	Leu	Ser	Leu	Phe	Tyr	Asn	Asn	Gly	Ala	Arg	Pro	Cys	Gly	Cys	
1425					1430					1435					1440	
His	Glu	Val	Gly	Ala	Thr	Gly	Pro	Thr	Cys	Glu	Pro	Phe	Gly	Gly	Gln	
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Cys	Pro	Cys	His	Ala	His	Val	Ile	Gly	Arg	Asp	Cys	Ser	Arg	Cys	Ala	
			1460					1465					1470			
Thr	Gly	Tyr	Trp	Gly	Phe	Pro	Asn	Cys	Arg	Pro	Cys	Asp	Cys	Gly	Ala	
		1475					1480					1485				
Arg	Leu	Cys	Asp	Glu	Leu	Thr	Gly	Gln	Cys	Ile	Cys	Pro	Pro	Arg	Thr	
		1490				1495					1500					
Ile	Pro	Pro	Asp	Cys	Leu	Leu	Cys	Gln	Pro	Gln	Thr	Phe	Gly	Cys	His	
1505					1510					1515					1520	
Pro	Leu	Val	Gly	Cys	Glu	Glu	Cys	Asn	Cys	Ser	Gly	Pro	Gly	Ile	Gln	
				1525					1530						1535	

Glu	Leu	Thr	Asp	Pro	Thr	Cys	Asp	Thr	Asp	Ser	Gly	Gln	Cys	Lys	Cys		
			1540					1545					1550				
Arg	Pro	Asn	Val	Thr	Gly	Arg	Arg	Cys	Asp	Thr	Cys	Ser	Pro	Gly	Phe		
		1555						1560				1565					
His	Gly	Tyr	Pro	Arg	Cys	Arg	Pro	Cys	Asp	Cys	His	Glu	Ala	Gly	Thr		
	1570						1575				1580						
Ala	Pro	Gly	Val	Cys	Asp	Pro	Leu	Thr	Gly	Gln	Cys	Tyr	Cys	Lys	Glu		
1585					1590					1595					1600		
Asn	Val	Gln	Gly	Pro	Lys	Cys	Asp	Gln	Cys	Ser	Leu	Gly	Thr	Phe	Ser		
				1605					1610					1615			
Leu	Asp	Ala	Ala	Asn	Pro	Lys	Gly	Cys	Thr	Arg	Cys	Phe	Cys	Phe	Gly		
		1620						1625				1630					
Ala	Thr	Glu	Arg	Cys	Arg	Ser	Ser	Ser	Tyr	Thr	Arg	Gln	Glu	Phe	Val		
	1635						1640					1645					
Asp	Met	Glu	Gly	Trp	Val	Leu	Leu	Ser	Thr	Asp	Arg	Gln	Val	Val	Pro		
	1650					1655				1660							
His	Glu	Arg	Gln	Pro	Gly	Thr	Glu	Met	Leu	Arg	Ala	Asp	Leu	Arg	His		
1665					1670					1675					1680		
Val	Pro	Glu	Ala	Val	Pro	Glu	Ala	Phe	Pro	Glu	Leu	Tyr	Trp	Gln	Ala		
			1685						1690					1695			
Pro	Pro	Ser	Tyr	Leu	Gly	Asp	Arg	Val	Ser	Ser	Tyr	Gly	Gly	Thr	Leu		
		1700						1705					1710				
Arg	Tyr	Glu	Leu	His	Ser	Glu	Thr	Gln	Arg	Gly	Asp	Val	Phe	Val	Pro		
	1715						1720					1725					
Met	Glu	Ser	Arg	Pro	Asp	Val	Val	Leu	Gln	Gly	Asn	Gln	Met	Ser	Ile		
	1730					1735					1740						
Thr	Phe	Leu	Glu	Pro	Ala	Tyr	Pro	Thr	Pro	Gly	His	Val	His	Arg	Gly		
1745					1750					1755					1760		
Gln	Leu	Gln	Leu	Val	Glu	Gly	Asn	Phe	Arg	His	Thr	Glu	Thr	Arg	Asn		
			1765						1770					1775			
Thr	Val	Ser	Arg	Glu	Glu	Leu	Met	Met	Val	Leu	Ala	Ser	Leu	Glu	Gln		
		1780						1785					1790				
Leu	Gln	Ile	Arg	Ala	Leu	Phe	Ser	Gln	Ile	Ser	Ser	Ala	Val	Phe	Leu		
	1795						1800					1805					
Arg	Arg	Val	Ala	Leu	Glu	Val	Ala	Ser	Pro	Ala	Gly	Gln	Gly	Ala	Leu		
	1810					1815					1820						
Ala	Ser	Asn	Val	Glu	Leu	Cys	Leu	Cys	Pro	Ala	Ser	Tyr	Arg	Gly	Asp		
1825					1830					1835					1840		
Ser	Cys	Gln	Glu	Cys	Ala	Pro	Gly	Phe	Tyr	Arg	Asp	Val	Lys	Gly	Leu		
			1845						1850					1855			
Phe	Leu	Gly	Arg	Cys	Val	Pro	Cys	Gln	Cys	His	Gly	His	Ser	Asp	Arg		
		1860						1865					1870				
Cys	Leu	Pro	Gly	Ser	Gly	Val	Cys	Val	Asp	Cys	Gln	His	Asn	Thr	Glu		
	1875						1880					1885					
Gly	Ala	His	Cys	Glu	Arg	Cys	Gln	Ala	Gly	Phe	Val	Ser	Ser	Arg	Asp		
	1890					1895					1900						
Asp	Pro	Ser	Ala	Pro	Cys	Val	Ser	Cys	Pro	Cys	Pro	Leu	Ser	Val	Pro		
1905					1910					1915					1920		
Ser	Asn	Asn	Phe	Ala	Glu	Gly	Cys	Val	Leu	Arg	Gly	Gly	Arg	Thr	Gln		
			1925						1930					1935			
Cys	Leu	Cys	Lys	Pro	Gly	Tyr	Ala	Gly	Ala	Ser	Cys	Glu	Arg	Cys	Ala		
		1940						1945					1950				
Pro	Gly	Phe	Phe	Gly	Asn	Pro	Leu	Val	Leu	Gly	Ser	Ser	Cys	Gln	Pro		
	1955						1960					1965					
Cys	Asp	Cys	Ser	Gly	Asn	Gly	Asp	Pro	Asn	Leu	Leu	Phe	Ser	Asp	Cys		
	1970					1975					1980						

Asp	Pro	Leu	Thr	Gly	Ala	Cys	Arg	Gly	Cys	Leu	Arg	His	Thr	Thr	Gly	
1985					1990					1995					2000	
Pro	Arg	Cys	Glu	Ile	Cys	Ala	Pro	Gly	Phe	Tyr	Gly	Asn	Ala	Leu	Leu	
				2005					2010						2015	
Pro	Gly	Asn	Cys	Thr	Arg	Cys	Asp	Cys	Thr	Pro	Cys	Gly	Thr	Glu	Ala	
			2020					2025						2030		
Cys	Asp	Pro	His	Ser	Gly	His	Cys	Leu	Cys	Lys	Ala	Gly	Val	Thr	Gly	
		2035					2040					2045				
Arg	Arg	Cys	Asp	Arg	Cys	Gln	Glu	Gly	His	Phe	Gly	Phe	Asp	Gly	Cys	
		2050				2055					2060					
Gly	Gly	Cys	Arg	Pro	Cys	Ala	Cys	Gly	Pro	Ala	Ala	Glu	Gly	Ser	Glu	
2065					2070					2075					2080	
Cys	His	Pro	Gln	Ser	Gly	Gln	Cys	His	Cys	Arg	Pro	Gly	Thr	Met	Gly	
			2085						2090					2095		
Pro	Gln	Cys	Arg	Glu	Cys	Ala	Pro	Gly	Tyr	Trp	Gly	Leu	Pro	Glu	Gln	
			2100					2105						2110		
Gly	Cys	Arg	Arg	Cys	Gln	Cys	Pro	Gly	Gly	Arg	Cys	Asp	Pro	His	Thr	
		2115					2120					2125				
Gly	Arg	Cys	Asn	Cys	Pro	Pro	Gly	Leu	Ser	Gly	Glu	Arg	Cys	Asp	Thr	
		2130				2135					2140					
Cys	Ser	Gln	Gln	His	Gln	Val	Pro	Val	Pro	Gly	Gly	Pro	Val	Gly	His	
2145					2150					2155					2160	
Ser	Ile	His	Cys	Glu	Val	Cys	Asp	His	Cys	Val	Val	Leu	Leu	Leu	Asp	
			2165						2170						2175	
Asp	Leu	Glu	Arg	Ala	Gly	Ala	Leu	Leu	Pro	Ala	Ile	His	Glu	Gln	Leu	
			2180					2185					2190			
Arg	Gly	Ile	Asn	Ala	Ser	Ser	Met	Ala	Trp	Ala	Arg	Leu	His	Arg	Leu	
		2195					2200						2205			
Asn	Ala	Ser	Ile	Ala	Asp	Leu	Gln	Ser	Gln	Leu	Arg	Ser	Pro	Leu	Gly	
		2210				2215					2220					
Pro	Arg	His	Glu	Thr	Ala	Gln	Gln	Leu	Glu	Val	Leu	Glu	Gln	Gln	Ser	
2225					2230					2235					2240	
Thr	Ser	Leu	Gly	Gln	Asp	Ala	Arg	Arg	Leu	Gly	Gly	Gln	Ala	Ala	Val	
			2245						2250					2255		
Gly	Thr	Arg	Asp	Gln	Ala	Ser	Gln	Leu	Leu	Ala	Gly	Thr	Glu	Ala	Thr	
			2260					2265					2270			
Leu	Gly	His	Ala	Lys	Thr	Leu	Leu	Ala	Ala	Ile	Arg	Ala	Val	Asp	Arg	
		2275					2280					2285				
Thr	Leu	Ser	Glu	Leu	Met	Ser	Gln	Thr	Gly	His	Leu	Gly	Leu	Ala	Asn	
		2290				2295					2300					
Ala	Ser	Ala	Pro	Ser	Gly	Glu	Gln	Leu	Leu	Arg	Thr	Leu	Ala	Glu	Val	
2305					2310					2315					2320	
Glu	Arg	Leu	Leu	Trp	Glu	Met	Arg	Ala	Arg	Asp	Leu	Gly	Ala	Pro	Gln	
			2325						2330					2335		
Ala	Ala	Ala	Glu	Ala	Glu	Leu	Ala	Ala	Ala	Gln	Arg	Leu	Leu	Ala	Arg	
			2340					2345					2350			
Val	Gln	Glu	Gln	Leu	Ser	Ser	Leu	Trp	Glu	Glu	Asn	Gln	Ala	Leu	Ala	
		2355					2360					2365				
Thr	Gln	Thr	Arg	Asp	Arg	Leu	Ala	Gln	His	Glu	Ala	Gly	Leu	Met	Asp	
		2370				2375					2380					
Leu	Arg	Glu	Ala	Leu	Asn	Arg	Ala	Val	Asp	Ala	Thr	Arg	Glu	Ala	Gln	
2385					2390					2395					2400	
Glu	Leu	Asn	Ser	Arg	Asn	Gln	Glu	Arg	Leu	Glu	Glu	Ala	Leu	Gln	Arg	
			2405						2410					2415		
Lys	Gln	Glu	Leu	Ser	Arg	Asp	Asn	Ala	Thr	Leu	Gln	Ala	Thr	Leu	His	
			2420					2425					2430			

Ala	Ala	Arg	Asp	Thr	Leu	Ala	Ser	Val	Phe	Arg	Leu	Leu	His	Ser	Leu		
		2435					2440					2445					
Asp	Gln	Ala	Lys	Glu	Glu	Leu	Glu	Arg	Leu	Ala	Ala	Ser	Leu	Asp	Gly		
	2450					2455					2460						
Ala	Arg	Thr	Pro	Leu	Leu	Gln	Arg	Met	Gln	Thr	Phe	Ser	Pro	Ala	Gly		
2465					2470					2475					2480		
Ser	Lys	Leu	Arg	Leu	Val	Glu	Ala	Ala	Glu	Ala	His	Ala	Gln	Gln	Leu		
			2485						2490					2495			
Gly	Gln	Leu	Ala	Leu	Asn	Leu	Ser	Ser	Ile	Ile	Leu	Asp	Val	Asn	Gln		
		2500						2505					2510				
Asp	Arg	Leu	Thr	Gln	Arg	Ala	Ile	Glu	Ala	Ser	Asn	Ala	Tyr	Ser	Arg		
	2515						2520					2525					
Ile	Leu	Gln	Ala	Val	Gln	Ala	Ala	Glu	Asp	Ala	Ala	Gly	Gln	Ala	Leu		
	2530					2535					2540						
Gln	Gln	Ala	Asp	His	Thr	Trp	Ala	Thr	Val	Val	Arg	Gln	Gly	Leu	Val		
2545					2550					2555					2560		
Asp	Arg	Ala	Gln	Gln	Leu	Leu	Ala	Asn	Ser	Thr	Ala	Leu	Glu	Glu	Ala		
			2565					2570						2575			
Met	Leu	Gln	Glu	Gln	Gln	Arg	Leu	Gly	Leu	Val	Trp	Ala	Ala	Leu	Gln		
		2580						2585					2590				
Gly	Ala	Arg	Thr	Gln	Leu	Arg	Asp	Val	Arg	Ala	Lys	Lys	Asp	Gln	Leu		
	2595						2600					2605					
Glu	Ala	His	Ile	Gln	Ala	Ala	Gln	Ala	Met	Leu	Ala	Met	Asp	Thr	Asp		
	2610				2615				2620								
Glu	Thr	Ser	Lys	Lys	Ile	Ala	His	Ala	Lys	Ala	Val	Ala	Ala	Glu	Ala		
2625					2630				2635					2640			
Gln	Asp	Thr	Ala	Thr	Arg	Val	Gln	Ser	Gln	Leu	Gln	Ala	Met	Gln	Glu		
			2645						2650					2655			
Asn	Val	Glu	Arg	Trp	Gln	Gly	Gln	Tyr	Glu	Gly	Leu	Arg	Gly	Gln	Asp		
		2660						2665					2670				
Leu	Gly	Gln	Ala	Val	Leu	Asp	Ala	Gly	His	Ser	Val	Ser	Thr	Leu	Glu		
	2675					2680					2685						
Lys	Thr	Leu	Pro	Gln	Leu	Leu	Ala	Lys	Leu	Ser	Ile	Leu	Glu	Asn	Arg		
	2690				2695						2700						
Gly	Val	His	Asn	Ala	Ser	Leu	Ala	Leu	Ser	Ala	Ser	Ile	Gly	Arg	Val		
2705					2710					2715				2720			
Arg	Glu	Leu	Ile	Ala	Gln	Ala	Arg	Gly	Ala	Ala	Ser	Lys	Val	Lys	Val		
			2725					2730						2735			
Pro	Met	Lys	Phe	Asn	Gly	Arg	Ser	Gly	Val	Gln	Leu	Arg	Thr	Pro	Arg		
		2740						2745					2750				
Asp	Leu	Ala	Asp	Leu	Ala	Ala	Tyr	Thr	Ala	Leu	Lys	Phe	Tyr	Leu	Gln		
	2755						2760					2765					
Gly	Pro	Glu	Pro	Glu	Pro	Gly	Gln	Gly	Thr	Glu	Asp	Arg	Phe	Val	Met		
	2770					2775				2780							
Tyr	Met	Gly	Ser	Arg	Gln	Ala	Thr	Gly	Asp	Tyr	Met	Gly	Val	Ser	Leu		
2785					2790				2795					2800			
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			2805						2810					2815			
Ala	Val	Leu	Ser	Ile	Asp	Glu	Asp	Ile	Gly	Glu	Gln	Phe	Ala	Ala	Val		
		2820						2825					2830				
Ser	Leu	Asp	Arg	Thr	Leu	Gln	Phe	Gly	His	Met	Ser	Val	Thr	Val	Glu		
	2835						2840					2845					
Arg	Gln	Met	Ile	Gln	Glu	Thr	Lys	Gly	Asp	Thr	Val	Ala	Pro	Gly	Ala		
	2850					2855				2860							
Glu	Gly	Leu	Leu	Asn	Leu	Arg	Pro	Asp	Asp	Phe	Val	Phe	Tyr	Val	Gly		
2865					2870					2875					2880		



Gly	Tyr	Pro	Ser	Thr	Phe	Thr	Pro	Pro	Pro	Leu	Leu	Arg	Phe	Pro	Gly
				2885						2890				2895	
Tyr	Arg	Gly	Cys	Ile	Glu	Met	Asp	Thr	Leu	Asn	Glu	Glu	Val	Val	Ser
			2900					2905					2910		
Leu	Tyr	Asn	Phe	Glu	Arg	Thr	Phe	Gln	Leu	Asp	Thr	Ala	Val	Asp	Arg
		2915					2920					2925			
Pro	Cys	Ala	Arg	Ser	Lys	Ser	Thr	Gly	Asp	Pro	Trp	Leu	Thr	Asp	Gly
	2930						2935				2940				
Ser	Tyr	Leu	Asp	Gly	Thr	Gly	Phe	Ala	Arg	Ile	Ser	Phe	Asp	Ser	Gln
2945					2950					2955					2960
Ile	Ser	Thr	Thr	Lys	Arg	Phe	Glu	Gln	Glu	Leu	Arg	Leu	Val	Ser	Tyr
			2965						2970					2975	
Ser	Gly	Val	Leu	Phe	Phe	Leu	Lys	Gln	Gln	Ser	Gln	Phe	Leu	Cys	Leu
			2980					2985					2990		
Ala	Val	Gln	Glu	Gly	Ser	Leu	Val	Leu	Leu	Tyr	Asp	Phe	Gly	Ala	Gly
		2995					3000					3005			
Leu	Lys	Lys	Ala	Val	Pro	Leu	Gln	Pro	Pro	Pro	Pro	Leu	Thr	Ser	Ala
	3010					3015					3020				
Ser	Lys	Ala	Ile	Gln	Val	Phe	Leu	Leu	Gly	Gly	Ser	Arg	Lys	Arg	Val
3025					3030					3035					3040
Leu	Val	Arg	Val	Glu	Arg	Ala	Thr	Val	Tyr	Ser	Val	Glu	Gln	Asp	Asn
			3045						3050					3055	
Asp	Leu	Glu	Leu	Ala	Asp	Ala	Tyr	Tyr	Leu	Gly	Gly	Val	Pro	Pro	Asp
			3060					3065					3070		
Gln	Leu	Pro	Pro	Ser	Leu	Arg	Arg	Leu	Phe	Pro	Thr	Gly	Gly	Ser	Val
		3075					3080					3085			
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	3090					3095					3100				
Lys	Arg	Leu	Asn	Thr	Thr	Gly	Val	Ser	Ala	Gly	Cys	Thr	Ala	Asp	Leu
3105					3110					3115					3120
Leu	Val	Gly	Arg	Ala	Met	Thr	Phe	His	Gly	His	Gly	Phe	Leu	Arg	Leu
			3125						3130					3135	
Ala	Leu	Ser	Asn	Val	Ala	Pro	Leu	Thr	Gly	Asn	Val	Tyr	Ser	Gly	Phe
			3140					3145					3150		
Gly	Phe	His	Ser	Ala	Gln	Asp	Ser	Ala	Leu	Leu	Tyr	Tyr	Arg	Ala	Ser
		3155					3160					3165			
Pro	Asp	Gly	Leu	Cys	Gln	Val	Ser	Leu	Gln	Gln	Gly	Arg	Val	Ser	Leu
	3170					3175					3180				
Gln	Leu	Leu	Arg	Thr	Glu	Val	Lys	Thr	Gln	Ala	Gly	Phe	Ala	Asp	Gly
3185					3190					3195					3200
Ala	Pro	His	Tyr	Val	Ala	Phe	Tyr	Ser	Asn	Ala	Thr	Gly	Val	Trp	Leu
			3205						3210					3215	
Tyr	Val	Asp	Asp	Gln	Leu	Gln	Gln	Met	Lys	Pro	His	Arg	Gly	Pro	Pro
			3220												

Cys Met Leu Pro Pro His Leu Arg Thr Thr Arg Asp Ser Tyr Gln Phe  
 3330 3335 3340  
 Gly Gly Ser Leu Ser Ser His Leu Glu Phe Val Gly Ile Leu Ala Arg  
 3345 3350 3355 3360  
 His Arg Asn Trp Pro Ser Leu Ser Met His Val Leu Pro Arg Ser Ser  
 3365 3370 3375  
 Arg Gly Leu Leu Leu Phe Thr Ala Arg Leu Arg Pro Gly Ser Pro Ser  
 3380 3385 3390  
 Leu Ala Leu Phe Leu Ser Asn Gly His Phe Val Ala Gln Met Glu Gly  
 3395 3400 3405  
 Leu Gly Thr Arg Leu Arg Ala Gln Ser Arg Gln Arg Ser Arg Pro Gly  
 3410 3415 3420  
 Arg Trp His Lys Val Ser Val Arg Trp Glu Lys Asn Arg Ile Leu Leu  
 3425 3430 3435 3440  
 Val Thr Asp Gly Ala Arg Ala Trp Ser Gln Glu Gly Pro His Arg Gln  
 3445 3450 3455  
 His Gln Gly Ala Glu His Pro Gln Pro His Thr Leu Phe Val Gly Gly  
 3460 3465 3470  
 Leu Pro Ala Ser Ser His Ser Ser Lys Leu Pro Val Thr Val Gly Phe  
 3475 3480 3485  
 Ser Gly Cys Val Lys Arg Leu Arg Leu His Gly Arg Pro Leu Gly Ala  
 3490 3495 3500  
 Pro Thr Arg Met Ala Gly Val Thr Pro Cys Ile Leu Gly Pro Leu Glu  
 3505 3510 3515 3520  
 Ala Gly Leu Phe Phe Pro Gly Ser Gly Gly Val Ile Thr Leu Asp Leu  
 3525 3530 3535  
 Pro Gly Ala Thr Leu Pro Asp Val Gly Leu Glu Leu Glu Val Arg Pro  
 3540 3545 3550  
 Leu Ala Val Thr Gly Leu Ile Phe His Leu Gly Gln Ala Arg Thr Pro  
 3555 3560 3565  
 Pro Tyr Leu Gln Leu Gln Val Thr Glu Lys Gln Val Leu Leu Arg Ala  
 3570 3575 3580  
 Asp Asp Gly Ala Gly Glu Phe Ser Thr Ser Val Thr Arg Pro Ser Val  
 3585 3590 3595 3600  
 Leu Cys Asp Gly Gln Trp His Arg Leu Ala Val Met Lys Ser Gly Asn  
 3605 3610 3615  
 Val Leu Arg Leu Glu Val Asp Ala Gln Ser Asn His Thr Val Gly Pro  
 3620 3625 3630  
 Leu Leu Ala Ala Ala Ala Gly Ala Pro Ala Pro Leu Tyr Leu Gly Gly  
 3635 3640 3645  
 Leu Pro Glu Pro Met Ala Val Gln Pro Trp Pro Pro Ala Tyr Cys Gly  
 3650 3655 3660  
 Cys Met Arg Arg Leu Ala Val Asn Arg Ser Pro Val Ala Met Thr Arg  
 3665 3670 3675 3680  
 Ser Val Glu Val His Gly Ala Val Gly Ala Ser Gly Cys Pro Ala Ala  
 3685 3690 3695

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 <213> Homo sapiens

<400> 32  
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 1 5 10 15

Tyr Lys Leu Val Arg Lys Ile Gly Ser Gly Ser Phe Gly Asp Val Tyr  
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 Leu Gly Ile Thr Thr Thr Asn Gly Glu Asp Val Ala Val Lys Leu Glu  
                   35                  40                  45  
 Ser Gln Lys Val Lys His Pro Gln Leu Leu Tyr Glu Ser Lys Leu Tyr  
                   50                  55                  60  
 Thr Ile Leu Gln Gly Gly Val Gly Ile Pro His Met His Trp Tyr Gly  
 65                  70                  75                  80  
 Gln Glu Lys Asp Asn Asn Val Leu Val Met Asp Leu Leu Gly Pro Ser  
                   85                  90                  95  
 Leu Glu Asp Leu Phe Asn Phe Cys Ser Arg Arg Phe Thr Met Lys Thr  
                   100                  105                  110  
 Val Leu Met Leu Ala Asp Gln Met Ile Ser Arg Ile Glu Tyr Val His  
                   115                  120                  125  
 Thr Lys Asn Phe Leu His Arg Asp Ile Lys Pro Asp Asn Phe Leu Met  
                   130                  135                  140  
 Gly Thr Gly Arg His Cys Asn Lys Leu Phe Leu Ile Asp Phe Gly Leu  
 145                  150                  155                  160  
 Ala Lys Lys Tyr Arg Asp Asn Arg Thr Arg Gln His Ile Pro Tyr Arg  
                   165                  170                  175  
 Glu Asp Lys His Leu Ile Gly Thr Val Arg Tyr Ala Ser Ile Asn Ala  
                   180                  185                  190  
 His Leu Gly Ile Glu Gln Ser Arg Arg Asp Asp Met Glu Ser Leu Gly  
                   195                  200                  205  
 Tyr Val Phe Met Tyr Phe Asn Arg Thr Ser Leu Pro Trp Gln Gly Leu  
                   210                  215                  220  
 Arg Ala Met Thr Lys Lys Gln Lys Tyr Glu Lys Ile Ser Glu Lys Lys  
 225                  230                  235                  240  
 Met Ser Thr Pro Val Glu Val Leu Cys Lys Gly Phe Pro Ala Glu Phe  
                   245                  250                  255  
 Ala Met Tyr Leu Asn Tyr Cys Arg Gly Leu Arg Phe Glu Glu Val Pro  
                   260                  265                  270  
 Asp Tyr Met Tyr Leu Arg Gln Leu Phe Arg Ile Leu Phe Arg Thr Leu  
                   275                  280                  285  
 Asn His Gln Tyr Asp Tyr Thr Phe Asp Trp Thr Met Leu Lys Gln Lys  
                   290                  295                  300  
 Ala Ala Gln Gln Ala Ala Ser Ser Ser Gly Gln Gly Gln Gln Ala Gln  
 305                  310                  315                  320  
 Thr Gln Thr Gly Lys Gln Thr Glu Lys Asn Lys Asn Asn Val Lys Asp  
                   325                  330                  335  
 Asn

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 Thr Gln Ala Ala Ala Leu Ile Asn Leu Lys Tyr Ser Val Glu Glu Glu  
                   20                  25                  30  
 Gln Arg Ala Gly Thr Val Ile Ala Asn Val Ala Lys Asp Ala Arg Glu  
                   35                  40                  45

Ala	Gly	Phe	Ala	Leu	Asp	Pro	Arg	Gln	Ala	Ser	Ala	Phe	Arg	Val	Val	
	50					55				60						
Ser	Asn	Ser	Ala	Pro	His	Leu	Val	Asp	Ile	Asn	Pro	Ser	Ser	Gly	Leu	
65					70					75					80	
Leu	Val	Thr	Lys	Gln	Lys	Ile	Asp	Arg	Asp	Leu	Leu	Cys	Arg	Gln	Ser	
			85						90					95		
Pro	Lys	Cys	Ile	Ile	Ser	Leu	Glu	Val	Met	Ser	Ser	Ser	Met	Glu	Ile	
			100					105					110			
Cys	Val	Ile	Lys	Val	Glu	Ile	Lys	Asp	Leu	Asn	Asp	Asn	Ala	Pro	Ser	
	115						120				125					
Phe	Pro	Ala	Ala	Gln	Ile	Glu	Leu	Glu	Ile	Ser	Glu	Ala	Ala	Ser	Pro	
130						135					140					
Gly	Thr	Arg	Ile	Pro	Leu	Asp	Ser	Ala	Tyr	Asp	Pro	Asp	Ser	Gly	Ser	
145					150					155					160	
Phe	Gly	Val	Gln	Thr	Tyr	Glu	Leu	Thr	Pro	Asn	Glu	Leu	Phe	Gly	Leu	
			165						170					175		
Glu	Ile	Lys	Thr	Arg	Gly	Asp	Gly	Ser	Arg	Phe	Ala	Glu	Leu	Val	Val	
			180					185					190			
Glu	Lys	Ser	Leu	Asp	Arg	Glu	Thr	Gln	Ser	His	Tyr	Ser	Phe	Arg	Ile	
	195						200					205				
Thr	Ala	Leu	Asp	Gly	Gly	Asp	Pro	Pro	Arg	Leu	Gly	Thr	Val	Gly	Leu	
	210					215					220					
Ser	Ile	Lys	Val	Thr	Asp	Ser	Asn	Asp	Asn	Asn	Pro	Val	Phe	Ser	Glu	
225					230					235					240	
Ser	Thr	Tyr	Ala	Val	Ser	Val	Pro	Glu	Asn	Ser	Pro	Pro	Asn	Thr	Pro	
			245						250					255		
Val	Ile	Arg	Leu	Asn	Ala	Ser	Asp	Pro	Asp	Glu	Gly	Thr	Asn	Gly	Gln	
			260					265					270			
Val	Val	Tyr	Ser	Phe	Tyr	Gly	Tyr	Val	Asn	Asp	Arg	Thr	Arg	Glu	Leu	
		275					280					285				
Phe	Gln	Ile	Asp	Pro	His	Ser	Gly	Leu	Val	Thr	Val	Thr	Gly	Ala	Leu	
	290					295					300					
Asp	Tyr	Glu	Glu	Gly	His	Val	Tyr	Glu	Leu	Asp	Val	Gln	Ala	Lys	Asp	
305					310					315					320	
Leu	Gly	Pro	Asn	Ser	Ile	Pro	Ala	His	Cys	Lys	Val	Thr	Val	Ser	Val	
			325						330					335		
Leu	Asp	Thr	Asn	Asp	Asn	Pro	Pro	Val	Ile	Asn	Leu	Leu	Ser	Val	Asn	
			340					345					350			
Ser	Glu	Leu	Val	Glu	Val	Ser	Glu	Ser	Ala	Pro	Pro	Gly	Tyr	Val	Ile	
	355						360					365				
Ala	Leu	Val	Arg	Val	Ser	Asp	Arg	Asp	Ser	Gly	Leu	Asn	Gly	Arg	Val	
	370					375					380					
Gln	Cys	Arg	Leu	Leu	Gly	Asn	Val	Pro	Phe	Arg	Leu	Gln	Glu	Tyr	Glu	
385					390					395					400	
Ser	Phe	Ser	Thr	Ile	Leu	Val	Asp	Gly	Arg	Leu	Asp	Arg	Glu	Gln	His	
			405						410					415		
Asp	Gln	Tyr	Asn	Leu	Thr	Ile	Gln	Ala	Arg	Asp	Gly	Gly	Val	Pro	Met	
			420					425					430			
Leu	Gln	Ser	Ala	Lys	Ser	Phe	Thr	Val	Leu	Ile	Thr	Asp	Glu	Asn	Asp	
		435					440					445				
Asn	His	Pro	His	Phe	Ser	Lys	Pro	Tyr	Tyr	Gln	Val	Ile	Val	Gln	Glu	
	450					455					460					
Asn	Asn	Thr	Pro	Gly	Ala	Tyr	Leu	Leu	Ser	Val	Ser	Ala	Arg	Asp	Pro	
465					470					475					480	
Asp	Leu	Gly	Leu	Asn	Gly	Ser	Val	Ser	Tyr	Gln	Ile	Val	Pro	Ser	Gln	
			485						490					495		



<400> 34

Met	Glu	Ser	Leu	Leu	Leu	Pro	Val	Leu	Leu	Leu	Leu	Ala	Ile	Leu	Trp
1				5					10					15	
Thr	Gln	Ala	Ala	Ala	Leu	Ile	Asn	Leu	Lys	Tyr	Ser	Val	Glu	Glu	Glu
		20						25					30		
Gln	Arg	Ala	Gly	Thr	Val	Ile	Ala	Asn	Val	Ala	Lys	Asp	Ala	Arg	Glu
		35					40					45			
Ala	Gly	Phe	Ala	Leu	Asp	Pro	Arg	Gln	Ala	Ser	Ala	Phe	Arg	Val	Val
	50					55					60				
Ser	Asn	Ser	Ala	Pro	His	Leu	Val	Asp	Ile	Asn	Pro	Ser	Ser	Gly	Leu
65					70					75					80
Leu	Val	Thr	Lys	Gln	Lys	Ile	Asp	Arg	Asp	Leu	Leu	Cys	Arg	Gln	Ser
			85						90					95	
Pro	Lys	Cys	Ile	Ile	Ser	Leu	Glu	Val	Met	Ser	Ser	Ser	Met	Glu	Ile
			100					105					110		
Cys	Val	Ile	Lys	Val	Glu	Ile	Lys	Asp	Leu	Asn	Asp	Asn	Ala	Pro	Ser
		115					120					125			
Phe	Pro	Ala	Ala	Gln	Ile	Glu	Leu	Glu	Ile	Ser	Glu	Ala	Ala	Ser	Pro
	130					135					140				
Gly	Thr	Arg	Ile	Pro	Leu	Asp	Ser	Ala	Tyr	Asp	Pro	Asp	Ser	Gly	Ser
145					150					155					160
Phe	Gly	Val	Gln	Thr	Tyr	Glu	Leu	Thr	Pro	Asn	Glu	Leu	Phe	Gly	Leu
			165					170						175	
Glu	Ile	Lys	Thr	Arg	Gly	Asp	Gly	Ser	Arg	Phe	Ala	Glu	Leu	Val	Val
			180					185					190		
Glu	Lys	Ser	Leu	Asp	Arg	Glu	Thr	Gln	Ser	His	Tyr	Ser	Phe	Arg	Ile
		195					200					205			
Thr	Ala	Leu	Asp	Gly	Gly	Asp	Pro	Pro	Arg	Leu	Gly	Thr	Val	Gly	Leu
	210					215					220				
Ser	Ile	Lys	Val	Thr	Asp	Ser	Asn	Asp	Asn	Asn	Pro	Val	Phe	Ser	Glu
225					230					235					240
Ser	Thr	Tyr	Ala	Val	Ser	Val	Pro	Glu	Asn	Ser	Pro	Pro	Asn	Thr	Pro
			245						250					255	
Val	Ile	Arg	Leu	Asn	Ala	Ser	Asp	Pro	Asp	Glu	Gly	Thr	Asn	Gly	Gln
			260					265					270		
Val	Val	Tyr	Ser	Phe	Tyr	Gly	Tyr	Val	Asn	Asp	Arg	Thr	Arg	Glu	Leu
		275					280					285			
Phe	Gln	Ile	Asp	Pro	His	Ser	Gly	Leu	Val	Thr	Val	Thr	Gly	Ala	Leu
	290					295					300				
Asp	Tyr	Glu	Glu	Gly	His	Val	Tyr	Glu	Leu	Asp	Val	Gln	Ala	Lys	Asp
305					310					315					320
Leu	Gly	Pro	Asn	Ser	Ile	Pro	Ala	His	Cys	Lys	Val	Thr	Val	Ser	Val
				325					330					335	
Leu	Asp	Thr	Asn	Asp	Asn	Pro	Pro	Val	Ile	Asn	Leu	Leu	Ser	Val	Asn
			340					345					350		
Ser	Glu	Leu	Val	Glu	Val	Ser	Glu	Ser	Ala	Pro	Pro	Gly	Tyr	Val	Ile
		355					360					365			
Ala	Leu	Val	Arg	Val	Ser	Asp	Arg	Asp	Ser	Gly	Leu	Asn	Gly	Arg	Val
	370					375					380				
Gln	Cys	Arg	Leu	Leu	Gly	Asn	Val	Pro	Phe	Arg	Leu	Gln	Glu	Tyr	Glu
385					390					395					400
Ser	Phe	Ser	Thr	Ile	Leu	Val	Asp	Gly	Arg	Leu	Asp	Arg	Glu	Gln	His
			405						410					415	
Asp	Gln	Tyr	Asn	Leu	Thr	Ile	Gln	Ala	Arg	Asp	Gly	Gly	Val	Pro	Met
			420					425					430		
Leu	Gln	Ser	Ala	Lys	Ser	Phe	Thr	Val	Leu	Ile	Thr	Asp	Glu	Asn	Asp
		435					440					445			

Asn	His	Pro	His	Phe	Ser	Lys	Pro	Tyr	Tyr	Gln	Val	Ile	Val	Gln	Glu
	450					455					460				
Asn	Asn	Thr	Pro	Gly	Ala	Tyr	Leu	Leu	Ser	Val	Ser	Ala	Arg	Asp	Pro
465					470					475					480
Asp	Leu	Gly	Leu	Asn	Gly	Ser	Val	Ser	Tyr	Gln	Ile	Val	Pro	Ser	Gln
				485					490					495	
Val	Arg	Asp	Met	Pro	Val	Phe	Thr	Tyr	Val	Ser	Ile	Asn	Pro	Asn	Ser
			500					505					510		
Gly	Asp	Ile	Tyr	Ala	Leu	Arg	Ser	Phe	Asn	His	Glu	Gln	Thr	Lys	Ala
	515						520					525			
Phe	Glu	Phe	Lys	Val	Leu	Ala	Lys	Asp	Gly	Gly	Leu	Pro	Ser	Leu	Gln
	530					535					540				
Ser	Asn	Ala	Thr	Val	Arg	Val	Ile	Ile	Leu	Asp	Val	Asn	Asp	Asn	Thr
545					550					555					560
Pro	Val	Ile	Thr	Ala	Pro	Pro	Leu	Ile	Asn	Gly	Thr	Ala	Glu	Val	Tyr
				565					570					575	
Ile	Pro	Arg	Asn	Ser	Gly	Ile	Gly	Tyr	Leu	Val	Thr	Val	Val	Lys	Ala
			580					585					590		
Glu	Asp	Tyr	Asp	Glu	Gly	Glu	Asn	Gly	Arg	Val	Thr	Tyr	Asp	Met	Thr
	595						600					605			
Glu	Gly	Asp	Arg	Gly	Phe	Phe	Glu	Ile	Asp	Gln	Val	Asn	Gly	Glu	Val
	610					615					620				
Arg	Thr	Thr	Arg	Thr	Phe	Gly	Glu	Ser	Ser	Lys	Ser	Ser	Tyr	Glu	Leu
625					630					635					640
Ile	Val	Val	Ala	His	Asp	His	Gly	Lys	Thr	Ser	Leu	Ser	Ala	Ser	Ala
				645					650					655	
Leu	Val	Leu	Ile	Tyr	Leu	Ser	Pro	Ala	Leu	Asp	Ala	Gln	Glu	Ser	Met
			660					665					670		
Gly	Ser	Val	Asn	Leu	Ser	Leu	Ile	Phe	Ile	Ile	Ala	Leu	Gly	Ser	Ile
		675					680					685			
Ala	Gly	Ile	Leu	Phe	Val	Thr	Met	Ile	Phe	Val	Ala	Ile	Lys	Cys	Lys
	690					695					700				
Arg	Asp	Asn	Lys	Glu	Ile	Arg	Thr	Tyr	Asn	Cys	Arg	Ile	Ala	Glu	Tyr
705					710					715					720
Ser	Tyr	Gly	His	Gln	Lys	Lys	Ser	Ser	Lys	Lys	Lys	Lys	Ile	Ser	Lys
				725					730					735	
Asn	Asp	Ile	Arg	Leu	Val	Pro	Arg	Asp	Val	Glu	Glu	Thr	Asp	Lys	Met
			740					745					750		
Asn	Val	Val	Ser	Cys	Ser	Ser	Leu	Thr	Ser	Ser	Leu	Asn	Tyr	Phe	Asp
		755					760					765			
Tyr	His	Gln	Gln	Thr	Leu	Pro	Leu	Gly	Cys	Arg	Arg	Ser	Glu	Ser	Thr
	770					775					780				
Phe	Leu	Asn	Val	Glu	Asn	Gln	Asn	Thr	Arg	Asn	Thr	Ser	Ala	Asn	His
785					790					795					800
Ile	Tyr	His	His	Ser	Phe	Asn	Ser	Gln	Gly	Pro	Gln	Gln	Pro	Asp	Leu
				805					810					815	
Ile	Ile	Asn	Gly	Val	Pro	Leu	Pro	Glu	Thr	Glu	Asn	Tyr	Ser	Phe	Asp
			820					825					830		
Ser	Asn	Tyr	Val	Asn	Ser	Arg	Ala	His	Leu	Ile	Lys	Arg	Tyr	Val	Gly
		835					840					845			
Leu	Leu	Ala	Tyr	Cys	Cys	Asn									
	850					855									

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 <212> PRT

<213> Homo sapiens

<400> 35

Met	Val	Thr	Lys	Ala	Phe	Val	Leu	Leu	Ala	Ile	Phe	Ala	Glu	Ala	Ser
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Ala	Lys	Ser	Cys	Ala	Pro	Asn	Lys	Ala	Asp	Val	Ile	Leu	Val	Phe	Cys
			20					25					30		
Tyr	Pro	Lys	Thr	Ile	Ile	Thr	Lys	Ile	Pro	Glu	Cys	Pro	Tyr	Gly	Trp
		35					40					45			
Glu	Val	His	Gln	Leu	Ala	Leu	Gly	Gly	Leu	Cys	Tyr	Asn	Gly	Val	His
	50					55					60				
Glu	Gly	Gly	Tyr	Tyr	Gln	Phe	Val	Ile	Pro	Asp	Leu	Ser	Pro	Lys	Asn
65					70					75					80
Lys	Ser	Tyr	Cys	Gly	Thr	Gln	Ser	Glu	Tyr	Lys	Pro	Pro	Ile	Tyr	His
				85					90					95	
Phe	Tyr	Ser	His	Ile	Val	Ser	Asn	Asp	Thr	Thr	Val	Ile	Val	Lys	Asn
			100					105					110		
Gln	Pro	Val	Asn	Tyr	Ser	Phe	Ser	Cys	Thr	Tyr	His	Ser	Thr	Tyr	Leu
		115					120					125			
Val	Asn	Gln	Ala	Ala	Phe	Asp	Gln	Arg	Val	Ala	Thr	Val	His	Val	Lys
	130						135					140			
Asn	Gly	Ser	Met	Gly	Thr	Phe	Glu	Ser	Gln	Leu	Ser	Leu	Asn	Phe	Tyr
145					150					155					160
Thr	Asn	Ala	Lys	Phe	Ser	Ile	Lys	Lys	Glu	Ala	Pro	Phe	Val	Leu	Glu
				165					170					175	
Ala	Ser	Glu	Ile	Gly	Ser	Asp	Leu	Phe	Ala	Gly	Val	Glu	Ala	Lys	Gly
			180					185					190		
Leu	Ser	Ile	Arg	Phe	Lys	Val	Val	Leu	Asn	Ser	Cys	Trp	Ala	Thr	Pro
		195					200					205			
Ser	Ala	Asp	Phe	Met	Tyr	Pro	Leu	Gln	Trp	Gln	Leu	Ile	Asn	Lys	Gly
	210					215					220				
Cys	Pro	Thr	Asp	Glu	Thr	Val	Leu	Val	His	Glu	Asn	Gly	Arg	Asp	His
225					230					235					240
Arg	Ala	Thr	Phe	Gln	Phe	Asn	Ala	Phe	Arg	Phe	Gln	Asn	Ile	Pro	Lys
				245					250					255	
Leu	Ser	Lys	Val	Trp	Leu	His	Cys	Glu	Thr	Phe	Ile	Cys	Asp	Ser	Glu
			260					265					270		
Lys	Leu	Ser	Cys	Pro	Val	Thr	Cys	Asp	Lys	Arg	Lys	Arg	Leu	Leu	Arg
		275					280					285			
Asp	Gln	Thr	Gly	Gly	Val	Leu	Val	Val	Glu	Leu	Ser	Leu	Arg	Ser	Arg
	290					295					300				
Gly	Phe	Ser	Ser	Leu	Tyr	Ser	Phe	Ser	Asp	Val	Leu	His	His	Leu	Ile
305					310					315					320
Met	Met	Leu	Gly	Ile	Cys	Ala	Val	Leu							
				325											

<210> 36

<211> 232

<212> PRT

<213> Homo sapiens

<400> 36

Met	Leu	Tyr	Thr	Arg	Lys	Asn	Leu	Thr	Cys	Ala	Gln	Thr	Ile	Asn	Ser
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Ser	Ala	Phe	Gly	Asn	Leu	Asn	Val	Thr	Lys	Lys	Thr	Thr	Phe	Ile	Val
			20					25					30		



His	Gly	Phe	Arg	Pro	Thr	Gly	Ser	Pro	Pro	Val	Trp	Met	Asp	Asp	Leu
		35					40					45			
Val	Lys	Gly	Leu	Leu	Ser	Val	Glu	Asp	Met	Asn	Val	Val	Val	Val	Asp
	50					55					60				
Trp	Asn	Arg	Gly	Ala	Thr	Thr	Leu	Ile	Tyr	Thr	His	Ala	Ser	Ser	Lys
65					70				75						80
Thr	Arg	Lys	Val	Ala	Met	Val	Leu	Lys	Glu	Phe	Ile	Asp	Gln	Met	Leu
				85					90					95	
Ala	Glu	Gly	Ala	Ser	Leu	Asp	Asp	Ile	Tyr	Met	Ile	Gly	Val	Ser	Leu
			100					105					110		
Gly	Ala	His	Ile	Ser	Gly	Phe	Val	Gly	Glu	Met	Tyr	Asp	Gly	Trp	Leu
		115					120					125			
Gly	Arg	Ile	Thr	Gly	Leu	Asp	Pro	Ala	Gly	Pro	Leu	Phe	Asn	Gly	Lys
	130					135					140				
Pro	His	Gln	Asp	Arg	Leu	Asp	Pro	Ser	Asp	Ala	Gln	Phe	Val	Asp	Val
145					150					155					160
Ile	His	Ser	Asp	Thr	Asp	Gly	Asn	Ala	Pro	Phe	Leu	Val	Ala	Leu	Gly
				165					170					175	
Tyr	Lys	Glu	Pro	Leu	Gly	Asn	Ile	Asp	Phe	Tyr	Pro	Asn	Gly	Gly	Leu
			180					185					190		
Asp	Gln	Pro	Gly	Cys	Pro	Lys	Thr	Ile	Leu	Gly	Gly	Asn	Val	Lys	Glu
		195					200					205			
Met	Ile	Gln	Ala	Ser	Tyr	Ile	Phe	Phe	Leu	Lys	Asn	Asp	Ser	Met	Asp
	210					215					220				
Leu	Ser	Ser	Pro	Lys	Glu	Val	Glu								
225					230										

<210> 37  
 <211> 452  
 <212> PRT  
 <213> Homo sapiens

<400> 37															
Met	Leu	Arg	Phe	Tyr	Leu	Phe	Ile	Ser	Leu	Leu	Cys	Leu	Ser	Arg	Ser
1				5					10					15	
Asp	Ala	Glu	Glu	Thr	Cys	Pro	Ser	Phe	Thr	Arg	Leu	Ser	Phe	His	Ser
			20					25					30		
Ala	Val	Val	Gly	Thr	Gly	Leu	Asn	Val	Arg	Leu	Met	Leu	Tyr	Thr	Arg
		35					40					45			
Lys	Asn	Leu	Thr	Cys	Ala	Gln	Thr	Ile	Asn	Ser	Ser	Ala	Phe	Gly	Asn
	50					55					60				
Leu	Asn	Val	Thr	Lys	Lys	Thr	Thr	Phe	Ile	Val	His	Gly	Phe	Arg	Pro
65					70					75					80
Thr	Gly	Ser	Pro	Pro	Val	Trp	Met	Asp	Asp	Leu	Val	Lys	Gly	Leu	Leu
				85					90					95	
Ser	Val	Glu	Asp	Met	Asn	Val	Val	Val	Val	Asp	Trp	Asn	Arg	Gly	Ala
			100					105					110		
Thr	Thr	Leu	Ile	Tyr	Thr	His	Ala	Ser	Ser	Lys	Thr	Arg	Lys	Val	Ala
		115					120					125			
Met	Val	Leu	Lys	Glu	Phe	Ile	Asp	Gln	Met	Leu	Ala	Glu	Gly	Ala	Ser
	130					135					140				
Leu	Asp	Asp	Ile	Tyr	Met	Ile	Gly	Val	Ser	Leu	Gly	Ala	His	Ile	Ser
145					150					155					160
Gly	Phe	Val	Gly	Glu	Met	Tyr	Asp	Gly	Trp	Leu	Gly	Arg	Ile	Thr	Gly
				165					170					175	

Leu	Asp	Pro	Ala	Gly	Pro	Leu	Phe	Asn	Gly	Lys	Pro	His	Gln	Asp	Arg	
			180					185					190			
Leu	Asp	Pro	Ser	Asp	Ala	Gln	Phe	Val	Asp	Val	Ile	His	Ser	Asp	Thr	
		195					200					205				
Asp	Ala	Leu	Gly	Tyr	Lys	Glu	Pro	Leu	Gly	Asn	Ile	Asp	Phe	Tyr	Pro	
		210				215					220					
Asn	Gly	Gly	Leu	Asp	Gln	Pro	Gly	Cys	Pro	Lys	Thr	Ile	Leu	Gly	Gly	
225					230					235					240	
Phe	Gln	Tyr	Phe	Lys	Cys	Asp	His	Gln	Arg	Ser	Val	Tyr	Leu	Tyr	Leu	
				245					250					255		
Ser	Ser	Leu	Arg	Glu	Ser	Cys	Thr	Ile	Thr	Ala	Tyr	Pro	Cys	Asp	Ser	
			260					265					270			
Tyr	Gln	Asp	Tyr	Arg	Asn	Gly	Lys	Cys	Val	Ser	Cys	Gly	Thr	Ser	Gln	
		275					280					285				
Lys	Glu	Ser	Cys	Pro	Leu	Leu	Gly	Tyr	Tyr	Ala	Asp	Asn	Trp	Lys	Asp	
	290					295					300					
His	Leu	Arg	Gly	Lys	Asp	Pro	Pro	Met	Thr	Lys	Ala	Phe	Phe	Asp	Thr	
305					310					315					320	
Ala	Glu	Glu	Ser	Pro	Phe	Cys	Met	Tyr	His	Tyr	Phe	Val	Asp	Ile	Ile	
				325					330					335		
Thr	Trp	Asp	Lys	Asn	Val	Arg	Arg	Gly	Asp	Ile	Thr	Ile	Lys	Leu	Arg	
			340					345					350			
Asp	Lys	Ala	Gly	Asn	Thr	His	Arg	Ser	Lys	Ile	Ile	Ser	Asn	Glu	Pro	
		355					360					365				
Thr	Thr	Phe	Gln	Lys	Tyr	His	Gln	Val	Ser	Leu	Leu	Ala	Arg	Phe	Asn	
	370					375					380					
Gln	Asp	Leu	Asp	Lys	Val	Ala	Ala	Ile	Ser	Leu	Met	Phe	Ser	Thr	Gly	
385					390					395					400	
Ser	Leu	Ile	Gly	Pro	Arg	Tyr	Lys	Leu	Arg	Ile	Leu	Arg	Met	Lys	Leu	
				405					410					415		
Arg	Ser	Leu	Ala	His	Pro	Glu	Arg	Pro	Gln	Leu	Cys	Arg	Tyr	Asp	Leu	
			420					425					430			
Val	Leu	Met	Glu	Asn	Val	Glu	Thr	Val	Phe	Gln	Pro	Ile	Leu	Cys	Pro	
		435					440					445				
Glu	Leu	Gln	Leu													
			450													

<210> 38  
 <211> 450  
 <212> PRT  
 <213> Homo sapiens

<400> 38

Met	Gly	Leu	Arg	Ser	His	His	Leu	Ser	Leu	Gly	Leu	Leu	Leu	Leu	Phe	
1				5					10					15		
Leu	Leu	Pro	Ala	Glu	Cys	Leu	Gly	Ala	Glu	Gly	Arg	Leu	Ala	Leu	Lys	
			20					25					30			
Leu	Phe	Arg	Asp	Leu	Phe	Ala	Asn	Tyr	Thr	Ser	Ala	Leu	Arg	Pro	Val	
		35					40					45				
Ala	Asp	Thr	Asp	Gln	Thr	Leu	Asn	Val	Thr	Leu	Glu	Val	Thr	Leu	Ser	
		50				55					60					
Gln	Ile	Ile	Asp	Met	Asp	Glu	Arg	Asn	Gln	Val	Leu	Thr	Leu	Tyr	Leu	
65					70					75					80	
Trp	Ile	Arg	Gln	Glu	Trp	Thr	Asp	Ala	Tyr	Leu	Arg	Trp	Asp	Pro	Asn	
				85					90						95	

Ala	Tyr	Gly	Gly	Leu	Asp	Ala	Ile	Arg	Ile	Pro	Ser	Ser	Leu	Val	Trp
			100					105					110		
Arg	Pro	Asp	Ile	Val	Leu	Tyr	Asn	Lys	Ala	Asp	Ala	Gln	Pro	Pro	Gly
		115					120					125			
Ser	Ala	Ser	Thr	Asn	Val	Val	Leu	Arg	His	Asp	Gly	Ala	Val	Arg	Trp
		130					135				140				
Asp	Ala	Pro	Ala	Ile	Thr	Arg	Ser	Ser	Cys	Arg	Val	Asp	Val	Ala	Ala
145					150					155					160
Phe	Pro	Phe	Asp	Ala	Gln	His	Cys	Gly	Leu	Thr	Phe	Gly	Ser	Trp	Thr
				165					170					175	
His	Gly	Gly	His	Gln	Leu	Asp	Val	Arg	Pro	Arg	Gly	Ala	Ala	Ala	Ser
			180					185					190		
Leu	Ala	Asp	Phe	Val	Glu	Asn	Val	Glu	Trp	Arg	Val	Leu	Gly	Met	Pro
		195					200					205			
Ala	Arg	Arg	Arg	Val	Leu	Thr	Tyr	Gly	Cys	Cys	Ser	Glu	Pro	Tyr	Pro
						215					220				
Asp	Val	Thr	Phe	Thr	Leu	Leu	Leu	Arg	Arg	Arg	Ala	Ala	Ala	Tyr	Val
225					230					235					240
Cys	Asn	Leu	Leu	Leu	Pro	Cys	Val	Leu	Ile	Ser	Leu	Leu	Ala	Pro	Leu
				245					250					255	
Ala	Phe	His	Leu	Pro	Ala	Asp	Ser	Gly	Glu	Lys	Val	Ser	Leu	Gly	Val
			260					265					270		
Thr	Val	Leu	Leu	Ala	Leu	Thr	Val	Phe	Gln	Leu	Leu	Leu	Ala	Glu	Ser
			275				280					285			
Met	Pro	Pro	Ala	Glu	Ser	Val	Pro	Leu	Ile	Gly	Lys	Tyr	Tyr	Met	Ala
		290				295					300				
Thr	Met	Thr	Met	Val	Thr	Phe	Ser	Thr	Ala	Leu	Thr	Ile	Leu	Ile	Met
305					310					315					320
Asn	Leu	His	Tyr	Cys	Gly	Pro	Ser	Val	Arg	Pro	Val	Pro	Ala	Trp	Ala
				325					330					335	
Arg	Ala	Leu	Leu	Leu	Gly	His	Leu	Ala	Arg	Gly	Leu	Cys	Val	Arg	Glu
				340				345					350		
Arg	Gly	Glu	Pro	Cys	Gly	Gln	Ser	Arg	Pro	Pro	Glu	Leu	Ser	Pro	Ser
		355					360					365			
Pro	Gln	Ser	Pro	Glu	Gly	Gly	Ala	Gly	Pro	Pro	Ala	Gly	Pro	Cys	His
		370				375					380				
Glu	Pro	Arg	Cys	Leu	Cys	Arg	Gln	Glu	Ala	Leu	Leu	His	His	Val	Ala
385					390					395					400
Thr	Ile	Ala	Asn	Thr	Phe	Arg	Ser	His	Arg	Ala	Ala	Gln	Arg	Cys	His
				405					410					415	
Glu	Asp	Trp	Lys	Arg	Leu	Ala	Arg	Val	Met	Asp	Arg	Phe	Phe	Leu	Ala
			420					425					430		
Ile	Phe	Phe	Ser	Met	Ala	Leu	Val	Met	Ser	Leu	Leu	Val	Leu	Val	Gln
		435					440					445			
Ala	Leu														
	450														

<210> 39  
 <211> 255  
 <212> PRT  
 <213> Homo sapiens

<400> 39  
 Met Val Lys Gly Glu Lys Gly Pro Lys Gly Lys Lys Ile Thr Leu Lys  
 1 5 10 15

Val	Ala	Arg	Asn	Cys	Ile	Lys	Ile	Thr	Phe	Asp	Gly	Lys	Lys	Arg	Leu
			20					25					30		
Asp	Leu	Ser	Lys	Met	Gly	Ile	Thr	Thr	Phe	Pro	Lys	Cys	Ile	Leu	Arg
		35				40						45			
Leu	Ser	Asp	Met	Asp	Glu	Leu	Asp	Leu	Ser	Arg	Asn	Leu	Ile	Arg	Lys
		50				55					60				
Ile	Pro	Asp	Ser	Ile	Ser	Lys	Phe	Gln	Asn	Leu	Arg	Trp	Leu	Asp	Leu
65					70				75					80	
His	Ser	Asn	Tyr	Ile	Asp	Lys	Leu	Pro	Glu	Ser	Ile	Gly	Gln	Met	Thr
			85						90					95	
Ser	Leu	Leu	Tyr	Leu	Asn	Val	Ser	Asn	Asn	Arg	Leu	Thr	Ser	Asn	Gly
			100					105					110		
Leu	Pro	Val	Glu	Leu	Lys	Gln	Leu	Lys	Asn	Ile	Arg	Ala	Val	Asn	Leu
		115					120					125			
Gly	Leu	Asn	His	Leu	Asp	Ser	Val	Pro	Thr	Thr	Leu	Gly	Ala	Leu	Lys
		130				135					140				
Glu	Leu	His	Glu	Val	Gly	Leu	His	Asp	Asn	Leu	Leu	Asn	Asn	Ile	Pro
145					150				155					160	
Val	Ser	Ile	Ser	Lys	Leu	Pro	Lys	Leu	Lys	Lys	Leu	Asn	Ile	Lys	Arg
				165					170					175	
Asn	Pro	Phe	Pro	Lys	Pro	Gly	Glu	Ser	Glu	Ile	Phe	Ile	Asp	Ser	Ile
			180					185					190		
Arg	Arg	Leu	Glu	Asn	Leu	Tyr	Val	Val	Glu	Glu	Lys	Asp	Leu	Cys	Ala
		195					200					205			
Ala	Cys	Leu	Arg	Lys	Cys	Gln	Asn	Ala	Arg	Asp	Asn	Leu	Asn	Arg	Ile
	210					215					220				
Lys	Asn	Met	Ala	Thr	Thr	Thr	Pro	Arg	Lys	Thr	Ile	Phe	Pro	Asn	Leu
225					230					235					240
Ile	Ser	Pro	Asn	Ser	Met	Ala	Lys	Asp	Ser	Trp	Glu	Asp	Trp	Arg	
			245						250					255	

<210> 40  
 <211> 214  
 <212> PRT  
 <213> Homo sapiens

<400> 40															
Met	Gln	Ala	Gly	Thr	Gln	Ser	Thr	His	Glu	Ser	Leu	Lys	Pro	Gln	Arg
1				5					10					15	
Val	Gln	Phe	Gln	Ser	Arg	Asn	Phe	His	Asn	Ile	Leu	Gln	Trp	Gln	Pro
			20					25					30		
Gly	Arg	Ala	Leu	Thr	Gly	Asn	Ser	Val	Tyr	Phe	Val	Gln	Tyr	Lys	
		35				40					45				
Ile	Tyr	Gly	Gln	Arg	Gln	Trp	Lys	Asn	Lys	Glu	Asp	Cys	Trp	Gly	Thr
		50				55					60				
Gln	Glu	Leu	Ser	Cys	Asp	Leu	Thr	Ser	Glu	Thr	Ser	Asp	Ile	Gln	Glu
65					70				75					80	
Pro	Tyr	Tyr	Gly	Arg	Val	Arg	Ala	Ala	Ser	Ala	Gly	Ser	Tyr	Ser	Glu
				85					90					95	
Trp	Ser	Met	Thr	Pro	Arg	Phe	Thr	Pro	Trp	Trp	Glu	Thr	Lys	Ile	Asp
			100					105					110		
Pro	Pro	Val	Met	Asn	Ile	Thr	Gln	Val	Asn	Gly	Ser	Leu	Leu	Val	Ile
		115					120					125			
Leu	His	Ala	Pro	Asn	Leu	Pro	Tyr	Arg	Tyr	Gln	Lys	Glu	Lys	Asn	Val
		130				135					140				

Ser	Ile	Glu	Asp	Tyr	Tyr	Glu	Leu	Leu	Tyr	Arg	Val	Phe	Ile	Ile	Asn
145					150					155					160
Asn	Ser	Leu	Glu	Lys	Glu	Gln	Lys	Val	Tyr	Glu	Gly	Ala	His	Arg	Ala
			165						170					175	
Val	Glu	Ile	Glu	Ala	Leu	Thr	Pro	His	Ser	Ser	Tyr	Cys	Val	Val	Ala
			180					185					190		
Glu	Ile	Tyr	Gln	Pro	Met	Leu	Asp	Arg	Arg	Ser	Gln	Arg	Ser	Glu	Glu
		195					200					205			
Arg	Cys	Val	Glu	Ile	Pro										
	210														

<210> 41  
 <211> 231  
 <212> PRT  
 <213> Homo sapiens

Met	Met	Pro	Lys	His	Cys	Phe	Leu	Gly	Phe	Leu	Ile	Ser	Phe	Phe	Leu
1				5					10					15	
Thr	Gly	Val	Ala	Gly	Thr	Gln	Ser	Thr	His	Glu	Ser	Leu	Lys	Pro	Gln
			20					25					30		
Arg	Val	Gln	Phe	Gln	Ser	Arg	Asn	Phe	His	Asn	Ile	Leu	Gln	Trp	Gln
		35					40					45			
Pro	Gly	Arg	Ala	Leu	Thr	Gly	Asn	Ser	Ser	Val	Tyr	Phe	Val	Gln	Tyr
		50				55					60				
Lys	Ile	Tyr	Gly	Gln	Arg	Gln	Trp	Lys	Asn	Lys	Glu	Asp	Cys	Trp	Gly
65				70					75					80	
Thr	Gln	Glu	Leu	Ser	Cys	Asp	Leu	Thr	Ser	Glu	Thr	Ser	Asp	Ile	Gln
				85					90					95	
Glu	Pro	Tyr	Tyr	Gly	Arg	Val	Arg	Ala	Ala	Ser	Ala	Gly	Ser	Tyr	Ser
			100					105					110		
Glu	Trp	Ser	Met	Thr	Pro	Arg	Phe	Thr	Pro	Trp	Trp	Glu	Thr	Lys	Ile
		115					120					125			
Asp	Pro	Pro	Val	Met	Asn	Ile	Thr	Gln	Val	Asn	Gly	Ser	Leu	Leu	Val
		130				135					140				
Ile	Leu	His	Ala	Pro	Asn	Leu	Pro	Tyr	Arg	Tyr	Gln	Lys	Glu	Lys	Asn
145					150					155					160
Val	Ser	Ile	Glu	Asp	Tyr	Tyr	Glu	Leu	Leu	Tyr	Arg	Val	Phe	Ile	Ile
				165					170					175	
Asn	Asn	Ser	Leu	Glu	Lys	Glu	Gln	Lys	Val	Tyr	Glu	Gly	Ala	His	Arg
			180					185					190		
Ala	Val	Glu	Ile	Glu	Ala	Leu	Thr	Pro	His	Ser	Ser	Tyr	Cys	Val	Val
		195					200					205			
Ala	Glu	Ile	Tyr	Gln	Pro	Met	Leu	Asp	Arg	Arg	Ser	Gln	Arg	Ser	Glu
	210					215					220				
Glu	Arg	Cys	Val	Glu	Ile	Pro									
225						230									

<210> 42  
 <211> 263  
 <212> PRT  
 <213> Homo sapiens

<400> 42

Met	Met	Pro	Lys	His	Cys	Phe	Leu	Gly	Phe	Leu	Ile	Ser	Phe	Phe	Leu
1				5					10					15	
Thr	Gly	Val	Ala	Gly	Thr	Gln	Ser	Thr	His	Glu	Ser	Leu	Lys	Pro	Gln
			20					25					30		
Arg	Val	Gln	Phe	Gln	Ser	Arg	Asn	Phe	His	Asn	Ile	Leu	Gln	Trp	Gln
		35					40					45			
Pro	Gly	Arg	Ala	Leu	Thr	Gly	Asn	Ser	Ser	Val	Tyr	Phe	Val	Gln	Tyr
	50					55					60				
Lys	Ile	Met	Phe	Ser	Cys	Ser	Met	Lys	Ser	Ser	His	Gln	Lys	Pro	Ser
65					70					75				80	
Gly	Cys	Trp	Gln	His	Ile	Ser	Cys	Asn	Phe	Pro	Gly	Cys	Arg	Thr	Leu
				85					90					95	
Ala	Lys	Tyr	Gly	Gln	Arg	Gln	Trp	Lys	Asn	Lys	Glu	Asp	Cys	Trp	Gly
			100					105					110		
Thr	Gln	Glu	Leu	Ser	Cys	Asp	Leu	Thr	Ser	Glu	Thr	Ser	Asp	Ile	Gln
		115					120					125			
Glu	Pro	Tyr	Tyr	Gly	Arg	Val	Arg	Ala	Ala	Ser	Ala	Gly	Ser	Tyr	Ser
	130					135					140				
Glu	Trp	Ser	Met	Thr	Pro	Arg	Phe	Thr	Pro	Trp	Trp	Glu	Thr	Lys	Ile
145					150					155				160	
Asp	Pro	Pro	Val	Met	Asn	Ile	Thr	Gln	Val	Asn	Gly	Ser	Leu	Leu	Val
			165						170					175	
Ile	Leu	His	Ala	Pro	Asn	Leu	Pro	Tyr	Arg	Tyr	Gln	Lys	Glu	Lys	Asn
			180					185					190		
Val	Ser	Ile	Glu	Asp	Tyr	Tyr	Glu	Leu	Leu	Tyr	Arg	Val	Phe	Ile	Ile
		195					200					205			
Asn	Asn	Ser	Leu	Glu	Lys	Glu	Gln	Lys	Val	Tyr	Glu	Gly	Ala	His	Arg
	210					215					220				
Ala	Val	Glu	Ile	Glu	Ala	Leu	Thr	Pro	His	Ser	Ser	Tyr	Cys	Val	Val
225					230					235					240
Ala	Glu	Ile	Tyr	Gln	Pro	Met	Leu	Asp	Arg	Arg	Ser	Gln	Arg	Ser	Glu
				245					250					255	
Glu	Arg	Cys	Val	Glu	Ile	Pro									
			260												

<210> 43  
 <211> 259  
 <212> PRT  
 <213> Homo sapiens

<400> 43

Met	Tyr	Val	Leu	Ser	Pro	Val	Glu	Phe	Ile	Ile	Leu	Gln	Leu	Leu	Phe
1				5					10					15	
Ile	Gln	Ala	Ile	Ser	Ser	Ser	Leu	Lys	Gly	Phe	Leu	Ser	Ala	Met	Arg
		20						25					30		
Leu	Ala	His	Arg	Gly	Cys	Asn	Val	Asp	Thr	Pro	Val	Ser	Thr	Leu	Thr
		35					40					45			
Pro	Val	Lys	Thr	Ser	Glu	Phe	Glu	Asn	Phe	Lys	Thr	Lys	Met	Val	Ile
	50					55					60				
Thr	Ser	Lys	Lys	Asp	Tyr	Pro	Leu	Ser	Lys	Asn	Phe	Pro	Tyr	Ser	Leu
65				70						75				80	
Glu	His	Leu	Gln	Thr	Ser	Tyr	Cys	Gly	Leu	Val	Arg	Val	Asp	Met	Arg
			85						90					95	
Met	Leu	Cys	Leu	Lys	Ser	Leu	Arg	Lys	Leu	Asp	Leu	Ser	His	Asn	His
			100					105					110		

Ile	Lys	Lys	Leu	Pro	Ala	Thr	Ile	Gly	Asp	Leu	Ile	His	Leu	Gln	Glu
		115						120				125			
Leu	Asn	Leu	Asn	Asp	Asn	His	Leu	Glu	Ser	Phe	Ser	Val	Ala	Leu	Cys
	130					135					140				
His	Ser	Thr	Leu	Gln	Lys	Ser	Leu	Arg	Ser	Leu	Asp	Leu	Ser	Lys	Asn
145					150					155					160
Lys	Ile	Lys	Ala	Leu	Pro	Val	Gln	Phe	Cys	Gln	Leu	Gln	Glu	Leu	Lys
			165						170					175	
Asn	Leu	Lys	Leu	Asp	Asp	Asn	Glu	Leu	Ile	Gln	Phe	Pro	Cys	Lys	Ile
			180					185					190		
Gly	Gln	Leu	Ile	Asn	Leu	Arg	Phe	Leu	Ser	Ala	Ala	Arg	Asn	Lys	Leu
	195						200					205			
Pro	Phe	Leu	Pro	Ser	Glu	Phe	Arg	Asn	Leu	Ser	Leu	Glu	Tyr	Leu	Asp
	210					215					220				
Leu	Phe	Gly	Asn	Thr	Phe	Glu	Gln	Pro	Lys	Val	Leu	Pro	Val	Ile	Lys
225					230					235					240
Leu	Gln	Ala	Pro	Leu	Thr	Leu	Leu	Glu	Ser	Ser	Ala	Arg	Thr	Ile	Leu
				245					250					255	
His	Asn	Arg													

<210> 44  
 <211> 416  
 <212> PRT  
 <213> Homo sapiens

<400> 44

Met	Lys	Leu	His	Cys	Glu	Val	Glu	Val	Ile	Ser	Arg	His	Leu	Pro	Ala
1				5					10					15	
Leu	Gly	Leu	Arg	Asn	Arg	Gly	Lys	Gly	Val	Arg	Ala	Val	Leu	Ser	Leu
			20					25					30		
Cys	Gln	Gln	Thr	Ser	Arg	Ser	Gln	Pro	Pro	Val	Arg	Ala	Phe	Leu	Leu
	35						40					45			
Ile	Ser	Thr	Leu	Lys	Asp	Lys	Arg	Gly	Thr	Arg	Tyr	Glu	Leu	Arg	Glu
	50					55					60				
Asn	Ile	Glu	Gln	Phe	Phe	Thr	Lys	Phe	Val	Asp	Glu	Gly	Lys	Ala	Thr
65					70					75					80
Val	Arg	Leu	Lys	Glu	Pro	Pro	Val	Asp	Ile	Cys	Leu	Ser	Lys	Ala	Ile
			85					90						95	
Ser	Ser	Ser	Leu	Lys	Gly	Phe	Leu	Ser	Ala	Met	Arg	Leu	Ala	His	Arg
			100					105					110		
Gly	Cys	Asn	Val	Asp	Thr	Pro	Val	Ser	Thr	Leu	Thr	Pro	Val	Lys	Thr
		115					120					125			
Ser	Glu	Phe	Glu	Asn	Phe	Lys	Thr	Lys	Met	Val	Ile	Thr	Ser	Lys	Lys
	130					135					140				
Asp	Tyr	Pro	Leu	Ser	Lys	Asn	Phe	Pro	Tyr	Ser	Leu	Glu	His	Leu	Gln
145					150					155					160
Thr	Ser	Tyr	Cys	Gly	Leu	Val	Arg	Val	Asp	Met	Arg	Met	Leu	Cys	Leu
				165					170					175	
Lys	Ser	Leu	Arg	Lys	Leu	Asp	Leu	Ser	His	Asn	His	Ile	Lys	Lys	Leu
			180					185					190		
Pro	Ala	Thr	Ile	Gly	Asp	Leu	Ile	His	Leu	Gln	Glu	Leu	Asn	Leu	Asn
		195					200					205			
Asp	Asn	His	Leu	Glu	Ser	Phe	Ser	Val	Ala	Leu	Cys	His	Ser	Thr	Leu
	210					215					220				

Gln	Lys	Ser	Leu	Arg	Ser	Leu	Asp	Leu	Ser	Lys	Asn	Lys	Ile	Lys	Ala
225					230					235					240
Leu	Pro	Val	Gln	Phe	Cys	Gln	Leu	Gln	Glu	Leu	Lys	Asn	Leu	Lys	Leu
				245					250					255	
Asp	Asp	Asn	Glu	Leu	Ile	Gln	Phe	Pro	Cys	Lys	Ile	Gly	Gln	Leu	Ile
			260					265					270		
Asn	Leu	Arg	Phe	Leu	Ser	Ala	Ala	Arg	Asn	Lys	Leu	Pro	Phe	Leu	Pro
		275				280						285			
Ser	Glu	Phe	Arg	Asn	Leu	Ser	Leu	Glu	Tyr	Leu	Asp	Leu	Phe	Gly	Asn
	290				295						300				
Thr	Phe	Glu	Gln	Pro	Lys	Val	Leu	Pro	Val	Ile	Lys	Leu	Gln	Ala	Pro
305					310					315					320
Leu	Thr	Leu	Leu	Glu	Ser	Ser	Ala	Arg	Thr	Ile	Leu	His	Asn	Arg	Asn
				325					330					335	
Arg	Ile	Pro	Tyr	Gly	Ser	His	Ile	Ile	Pro	Phe	His	Leu	Cys	Gln	Asp
			340					345					350		
Leu	Asp	Thr	Ala	Lys	Ile	Cys	Val	Cys	Gly	Arg	Phe	Cys	Leu	Asn	Ser
		355				360					365				
Phe	Ile	Gln	Gly	Thr	Thr	Thr	Met	Asn	Leu	His	Ser	Val	Ala	His	Thr
	370					375					380				
Val	Val	Leu	Val	Asp	Asn	Leu	Gly	Gly	Thr	Glu	Ala	Pro	Ile	Ile	Ser
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<400> 46



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Ala	Lys	Ser	Cys 20	Thr	Pro	Asn	Lys	Ala 25	Asp	Val	Ile	Leu	Val	Phe	Cys
Tyr	Pro	Lys 35	Thr	Ile	Ile	Thr	Lys 40	Ile	Pro	Glu	Cys	Pro 45	Tyr	Gly	Trp
Glu	Val 50	His	Gln	Leu	Ala	Leu 55	Gly	Gly	Leu	Cys	Tyr 60	Asn	Gly	Val	His
Glu 65	Gly	Gly	Tyr	Tyr	Gln 70	Phe	Val	Ile	Pro	Asp 75	Leu	Ser	Pro	Lys	Asn 80
Lys	Ser	Tyr	Cys	Gly 85	Thr	Gln	Ser	Glu	Tyr 90	Lys	Pro	Pro	Ile	Tyr 95	His
Phe	Tyr	Ser	His 100	Ile	Val	Ser	Asn	Asp 105	Ser	Thr	Val	Ile	Val 110	Lys	Asn
Gln	Pro	Val 115	Asn	Tyr	Ser	Phe	Ser 120	Cys	Thr	Tyr	His	Ser 125	Thr	Tyr	Leu
Val	Asn 130	Gln	Ala	Ala	Phe	Asp 135	Gln	Arg	Val	Ala	Thr 140	Val	His	Val	Lys
Asn 145	Gly	Ser	Met	Gly	Thr 150	Phe	Glu	Ser	Gln	Leu 155	Ser	Leu	Asn	Phe	Tyr 160
Thr	Asn	Ala	Lys	Phe 165	Ser	Thr	Lys	Lys	Glu 170	Ala	Pro	Phe	Val	Leu 175	Glu
Thr	Ser	Glu	Ile 180	Gly	Ser	Asp	Leu	Phe 185	Ala	Gly	Val	Glu	Ala 190	Lys	Gly
Leu	Ser	Val 195	Arg	Phe	Lys	Val	Val 200	Leu	Asn	Ser	Cys	Trp 205	Ala	Thr	Pro
Ser	Ala 210	Asp	Phe	Met	Tyr	Pro 215	Leu	Gln	Trp	Gln	Leu 220	Ile	Asn	Lys	Gly
Cys 225	Pro	Thr	Asp	Glu	Thr 230	Val	Leu	Val	His	Glu 235	Asn	Gly	Lys	Asp	His 240
Arg	Ala	Thr	Phe 245	Gln	Phe	Asn	Ala	Phe	Arg 250	Phe	Gln	Asn	Ile	Pro 255	Lys
Leu	Ser	Lys	Val 260	Trp	Leu	His	Cys	Glu 265	Thr	Phe	Ile	Cys	Asp 270	Ser	Glu
Lys	Leu	Ser 275	Cys	Pro	Val	Asn	Cys 280	Asp	Lys	Arg	Lys	Arg 285	Met	Leu	Arg
Asp	Gln 290	Thr	Gly	Gly	Val	Leu 295	Val	Val	Glu	Leu	Ser 300	Leu	Arg	Ser	Arg
Ala 305	Phe	Ser	Gly	Leu	Cys 310	Asp	Phe	Ser	Asp	Val 315	Leu	Leu	His	Leu	Ile 320
Leu	Met	Leu	Gly	Thr 325	Trp	Ala	Val	Leu							